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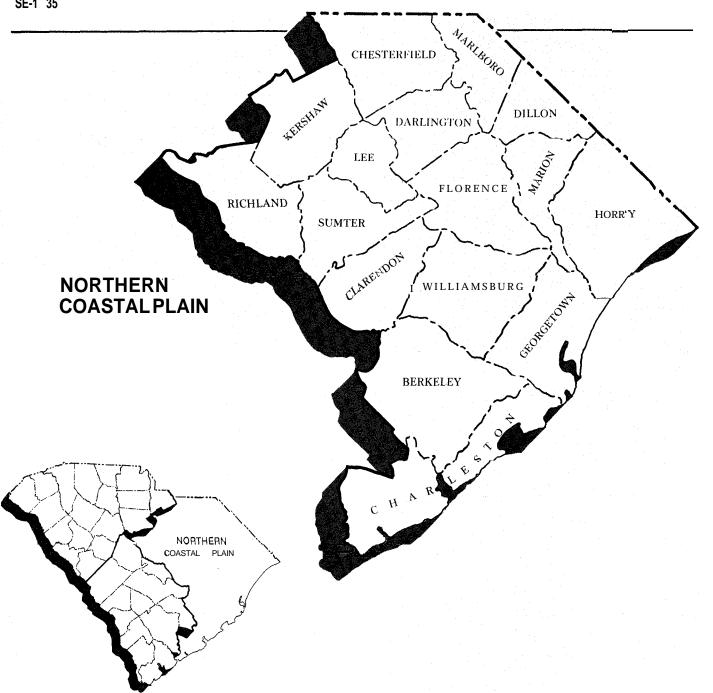


Southeastern Forest Experiment Station

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Forest Statistics for the Northern Coastal Plain of South Carolina, 1992

Michael T. Thompson Raymond M. Sheffield



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Southeastern Forest Experiment Station P.O. Box 2680
Asheville, North Carolina 28802

Forest Statistics for the Northern Coastal Plain of South Carolina, 1992

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Foreword

This report highlights the principal findings of the seventh forest survey of the Northern Coastal Plain of South Carolina. Field work began in January 1992 and was completed in September 1992. Six previous surveys, completed in 1936, 1947, 1956, 1968, 1978, and 1986 provide statistics for measuring changes and trends over the past 56 years. The primary emphasis in this report is on the changes and trends since 1986.

Periodic surveys of forest resources are authorized by the Forest and Rangeland Renewable Resources Research Act of 1978. These surveys are a continuing, nationwide undertaking by the Regional Experiment Stations of the USDA Forest Service. In Florida, Georgia, North Carolina, South Carolina, and Virginia, these surveys are administered by the Forest Inventory and Analysis (Forest Survey) Research Unit at the Southeastern Forest Experiment Station, with headquarters in Asheville, NC. The primary objective of the survey is to periodically inventory and evaluate all forest and related resources. These multiresource data help provide a basis for formulating forest policies and programs and for the orderly development and use of the resources. This report deals only with the extent and condition of forest land, associated timber volumes, and rates of timber growth, mortality, and removals.

Additional information concerning any aspect of this survey may be obtained from:

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^e All tables in this report are available in Lotus 1-2-3 $^{\circ}$ worksheet files. These files will be supplied, upon request, on 3½- or 5½-inch diskettes.

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Introduction

This report summarizes results from a 1992 inventory of the forest resources of the Northern Coastal Plain of South Carolina. Current estimates of forest area, associated conditions, and timber volume are highlighted and compared with previous inventories. Average annual levels of growth, removals, and mortality since the previous inventory in 1986 are provided.

The forest resources in these 16 counties were severely damaged by Hurricane Hugo in 1989. Thus, rather severe reductions in inventory volumes, abnormally high mortality, and low levels of net annual growth are reported. For example, net growth of growing stock averaged less than 11 cubic feet per acre per year because of excessive storm-related mortality. Consequently, these **growth** rates are not reflective of what forests in this region are capable of producing or are now producing. Readers should also be aware that negative net **growth** values are reported for certain segments of the resource. In these situations, mortality exceeded levels of gross **growth**.

Highlights

Since 1986 in the Northern Coastal Plain of South Carolina-

- @ area of timberland increased by 3 percent and now totals 4.7 million acres, During the remeasurement period, this region experienced land use changes on over 454,000 acres. More than 155,000 acres of diversions to other land uses were offset by the addition of nearly 299,000 acres to the timberland base. All of the additions resulted from tree planting and natural reversion on former agricultural land. Urban and related uses accounted for 53 percent of the diverted area. Reclassification of timberland to a reserved status accounted for 28 percent of the diversions, and most of the remainder resulted from forest clearing for agricultural purposes. Timberland now accounts for 64 percent of the total acreage in this 16-county area.
- area of timberland owned by nonindustrial private forest (NIPF) landowners has increased by 332,000 acres, or 12percent. NIPF owners currently control 3.2 million acres, or 67 percent of the timberland in the region. Within the NIPF category, timberland held by other individuals increased 18 percent to 1.5 million acres, and that of other corporate owners rose 21 percent to 551,000 acres. Farmer-owned timberland remained stable. Timberland owned or leased by forest industry declined 15 percent to under 1.1 million acres. The area of timberland in public ownership remained steady at 484,000 acres; public agencies account for 10 percent of timberland in the region.
- area of timberland classified as a pine type remained stable at 1.9 million acres. Acreage in planted pine jumped 33 percent to 870,000 acres, whereas natural pine stands fell 17 percent to 1.0 million acres. Pine plantations now account for 46 percent of all pine stands in the region. Acreage in loblolly pine increased by over 11 percent to 1.5 million acres. In contrast, area in longleaf pine forest types declined 18 percent to 170,000 acres. Pond and slash pine types also dropped 36 and 35 percent, respectively. Oak-pine forest type increased 23 percent to 752,000 acres. The predominant hardwood forest type, oak-gum-cypress, increased 5 percent to 1.4 million acres. Acreage in oak-hickory types increased 2 percent to 525,000 acres. Hardwood types now constitute 44 percent of the total timberland area in the region.
- more than 116,000 acres were harvested annually and retained in timberland. Many of these acres experiencing a final harvest were the result of salvage efforts following Hurricane Hugo. The area harvested each year increased 21 percent, or 20,000 acres, over that harvested between 1978 and 1986. Of the acres harvested, 69 percent were on NIPF land, 22 percent on land controlled by forest industry, and the remaining 9 percent on public land. Pine stands (both planted and natural) accounted for 62 percent of the annual harvested acreage. Hardwood stands accounted for 28 percent of the annual harvest and oak-pine stands for the remaining 10 percent. In addition to final harvests, some form of partial harvests or intermediate cutting occurred on 22,000 acres each year. Natural disturbances such as

,

weather, fire, insects, and diseases damaged 449,000 acres yearly. This average is well above the **36,000-acre** annual average that was measured between 1978 and 1986, primarily as a result of the storm-related damage caused by Hugo.

- artificial and natural regeneration increased almost SO percent from an average of 93,000 to 177,000 acres annually. New pine stands established by artificial and natural methods averaged over 90,000 acres per year-exceeding the area of pine harvested by 25 percent. Nearly all of the increase in planting activity occurred on NIPF land, where planting rates more than tripled to 34,000 acres annually; one-half of the planting on NIPF properties was on nonforest lands. Artificial regeneration on public lands increased fivefold to 2.500 acres each year. Across all ownerships, the annual rate of natural regeneration almost doubled from 59,000 to 117,000 acres yearly. A large portion of this increase is attributed to the natural regeneration of new young stands on hurricane-damaged timberland. Large increases in natural regeneration occurred in all ownership categories. About 79 percent of the total acreage that naturally regenerated occurred on NIPF land; forest industry accounted for 1 1 percent, and public land made up the remaining 10 percent.
- average basal area of live trees 5.0 inches d.b.h. and larger has dropped from 75 to 60 square feet per acre. The severe weather damage sustained by older, high-volume stands contributed to this reduction. Area of stands classified as fully stocked decreased 6 percent to 1.7 million acres, whereas medium-stocked stands increased 5 percent to 2.1 million acres. Poorly stocked and nonstocked stands increased 21 percent to 0.9 million acres and account for 19 percent of the timberland in the region. Merchantable net volume per acre currently averages 1,301 cubic feet per acre, compared with 1,677 cubic feet per acre in 1986.
- number of live softwood stems in the 2-inch diameter class increased 85 percent, reversing a downward trend measured in the two previous inventories. This large buildup is attributed primarily to accelerated rates of planting and natural pine regeneration that began in the 1980's. The increase in 2-inch softwoods occurred in stands that were established before Hurricane Hugo struck. For example, pine plantations and natural pine stands 4 to 12 years old accounted for 83 percent of the recent increase. Pine stands established since Hurricane Hugo should maintain or boost the inventory of small softwoods. Numbers of 4-inch softwoods increased 19 percent since 1986. In contrast to softwoods, the number of hardwood saplings dropped slightly-by 4 percent for the 2-inch class and 8 percent for the 4-inch class.

- volume of softwood growing stock declined from 3.4 to 2.5 billion cubic feet, or 26 percent. All the major softwood species registered declines in volume. Volume of **lobioly** pine dropped 24 percent to 1.7 billion cubic feet and accounted for 60 percent of the total decline. Loblolly pine remains the dominant species in terms of growing-stock volume with 69 percent of the current softwood inventory. Longleaf pine volume decreased 38 percent to 231 million cubic feet and slash pine volume fell 19 percent to 125 million cubic feet. Pond and shortleaf pines suffered the most severe volume loss of 46 and 47 percent to 130 and 28 million cubic feet, respectively. Softwood growing-stock volume fell 30 percent to 1.4 billion cubic feet on NIPF land and declined 37 percent to 368 million cubic feet on public land. On land controlled by forest industry, softwood volume dropped 9 percent to 730 million cubic feet. Softwood volume contained in pine plantations increased 24 percent to 617 million cubic feet, whereas softwood inventory in natural pine stands declined 42 percent to under 1.2 billion cubic feet. As a result of the severe volume loss sustained in natural pine stands, the distribution of softwood growing-stock volume by broad management class changed substantially. Planted pine stands now contain 25 percent of the current softwood inventory compared with 15 percent in 1986. Softwood growing-stock volume decreased across the range of diameter classes with the most severe reductions occurring in the largest diameter categories. Declines ranged from 2 percent in the 6-inch class to 46 percent in the 21-inch and larger class. The present inventory of softwood growing stock includes 9.5 billion board feet of sawtimber, down 33 percent since the previous survey.
- volume of hardwood growing stock declined 13 percent from 3.6 to 3.1 billion cubic feet. Nearly all major species of hardwoods recorded declines in volume. The collective volume of red oaks dropped 26 percent to 584 million cubic feet and accounted for 40 percent of the total decline. Tupelo and blackgum-the major species group in terms of hardwood volume-declined 8 percent to 885 million cubic feet. Volume of sweetgum dropped 13 percent to 656 million cubic feet, while volume of soft maple increased 4 percent to 310 million cubic feet. By ownership, public land registered a larger decline (19 percent) in hardwood volume than any other category. Hardwood volume dropped 13 percent to 2.2 billion cubic feet on NIPF land and declined by an equal rate to 726 million cubic feet on land controlled by forest industry. Volume of hardwood growing stock declined in all diameter classes, although the declines were more moderate than those for softwoods. Consistent with the trends observed in softwood inventory by diameter class, the reductions for hardwoods were most severe in the large-diameter trees. The smallest decline of under 1 percent occurred in the lo-inch class, and the

- largest decline of 36 percent occurred in the 2 1 -inch and larger category. The current inventory of hardwood growing stock includes 9.0 billion board feet of **saw**-timber, down 21 percent since 1966.
- due to extreme mortality losses, net annual growth of softwood growing stock declined 84 percent from an average of 177 million cubic feet for the previous remeasurement period to only 28 million cubic feet between 1986 and 1992. The decline was most severe on public land where softwood net growth dropped from 29 to -19 million cubic feet annually. Net growth for softwoods decreased 95 percent from 97 to 5 million cubic feet on NIPF land and was down 18 percent from 52 to 43 million cubic feet on land controlled by forest industry. The modest growth reduction on forest industry land is due to the lower incidence of damage and mortality losses in younger stands characteristic of this ownership. Because of abnormally low net growth, softwood removals were far greater than growth on NIPF and public land but exceeded growth by only 11 percent on land controlled by forest industry. Net annual growth of hardwood growing stock dropped nearly 77 percent from 96 to 23 million cubic feet. Hardwood growth declines were most severe on public land where net growth fell from 7 to -3 million cubic feet. Hardwood growth decreased 69 percent to 22 million cubic feet on NIPF land and dropped 82 percent to 4 million cubic feet on forest industry land. During the latest remeasurement cycle, hardwood removals were nearly three times the rate of net growth. Net annual growth for all species included 62 million board feet of sawtimber. Net growth per acre for softwood and hardwood growing stock declined from 62 to under 1 1 cubic feet per acre.
- annual removals of softwood growing stock increased 9 percent from an average of 160 to 175 million cubic feet. The current level of softwood removals does not include 58 million cubic feet of softwood growing stock that was removed as a result of salvage operations following Hurricane Hugo. This volume was categorized as weather-related mortality. By ownership, 65 percent of the softwood removals came from **NIPF** land, 27 percent from forest industry land, and the remaining 8 percent from public land. Softwoods accounted for over two-thirds of total growing-stock removals and included 779 million board feet of sawtimber. Hardwood growing-stock removals jumped 18 percent to 87 million cubic feet-not including 7 million cubic feet of storm-related salvage volume classified as mortality. Nearly 75 percent of all hardwood removals came from NIPF land. Removals of hardwood growing stock included 303 million board feet of sawtimber.
- annual mortality of softwood growing stock averaged 174 million cubic feet between 1986 and 1992, up more than eight times the level recorded between 1978 and 1986. Of the total annual softwood mortality, about 155 million cubic feet is attributable to the effects of Hugo-related damage. Softwood mortality increased significantly in all ownership categories. The largest increase occurred on public land where softwood mortality soared from 3 to 44 million cubic feet. Softwood mortality included 808 million board feet of sawtimber and reduced gross growth by 86 percent. Annual mortality of hardwood growing stock jumped from 25 to 102 million cubic feet, of which 83 million cubic feet, or 81 percent, was weather-related mortality. Large increases in hardwood mortality occurred in all ownership classes. Hardwood mortality included 391 million board feet of sawtimber and reduced gross growth by 82 percent.

How the Inventory is Made

Procedures used in the seventh inventory of the forest resources in the Northern Coastal Plain of South Carolina included several basic steps.

- 1. Initial estimates of forest and nonforest areas were based on the classification of 36,179 sample clusters systematically spaced on the latest aerial photographs available. A subsample of 3,1 14 of the 16-point clusters was ground checked, and a linear regression was fitted to the data to develop the relationship between the photo and ground classification of the subsample. This procedure provides a means for adjusting the initial estimates of area for change in land use since date of photography and for photo misclassification.
- 2. Estimates of timber volume and forest classification were based on measurements recorded at 1,934 ground sample locations systematically distributed on timberland. The plot design at each location was based on a cluster of 10 points. In most cases, variable plots, established by using a basal-area factor of 37.5 square feet per acre, were systematically spaced within a single forest condition at 5 of the 10 cluster points. Trees less than 5 inches d.b.h. were tallied on a fixed-radius plot around each point center.
- 3. Equations prepared from detailed measurements collected on standing trees in this Survey Unit, and similar measurements taken throughout the Southeast, were used to compute the volume of individual tally trees. A mirror caliper and sectional aluminum poles were used to obtain the additional measurements required to construct volume equations. Forest biomass estimates were made from equations developed by the Utilization of Southern Timber Research Work Unit, Southeastern Forest Experiment Station, Athens, GA.
- 4. Felled trees were measured at 34 active cutting operations. These data will supplement the **standing**-tree volume data and be used to generate utilization factors for product and species groups.
- 5. Estimates of growth, removals, and mortality were determined from the remeasurement of 1,985 permanent sample plots established in the sixth survey.
- 6. Ownership information was collected from correspondence, public records, and local contacts. In counties where the sample missed a particular ownership class, temporary sample plots were added.
- 7. All field data were sent to Asheville for editing and were entered into disk and magnetic-tape storage for processing. Final estimates were based on statistical summaries of the data.

Statistical Reliability

FIA inventories employ sampling methods designed to achieve reliable statistics at the Survey Unit and State levels. A measure of reliability of inventory statistics is provided by sampling errors. These sampling errors mean that the chances are two out of three that the true population value is within the limits indicated by a confidence interval. Sampling errors (in percent) and associated confidence intervals around the sample estimates for timberland area, inventory volumes, and components of change are presented in the following table.

Item	Sample estimate and confidence interval	Sampling error (percent)
Timberland (1,000 aci	res) 4,7 18.4 ± 17.9	0.38
Growing stock (M ft³) Inventory Net annual growth Annual removals Annual mortality	5650.5 ± 135.6 51.1 ± 13.9 262.4 ± 14.9 276.1 ± 12.8	2.40 27.15 5.66 4.65
Sawtimber (M fbm) Inventory Net annual growth Annual removals Annual mortality	18,483.1 ± 552.6 61.7 ± 70.6 1,082.9 ± 68.8 1,198.6 ± 64.8	2.99 114.45 6.35 5.41

Sampling error increases as the area or volume considered decreases in magnitude. Sampling errors and associated confidence intervals are often unacceptably high for small components of the total resource. Statistical confidence may be computed for any subdivision of Survey Unit or State totals using the following formula. Sampling errors obtained from this method are only

approximations of reliability because this process assumes constant variance across all subdivisions of totals.

$$SE_s = SE_t \frac{\sqrt{X_t}}{\sqrt{X_s}}$$
,

where

SE_e = sampling error for subdivision of Survey Unit or State total.

SE, = sampling error for Survey Unit or State total,

X_e = sum of values for the variable of interest (area or volume) for subdivision of Survey Unit or State.

 X_t = total area or volume for Survey Unit or State.

For example, the estimate of sampling error for **growing**stock volume on other private timberland is computed

$$SE_{,} = 2.4 \frac{\sqrt{5,650.5}}{\sqrt{3.639.5}} = 2.99.$$

Thus, the sampling error is 2.99 percent, and the resulting confidence interval (two times out of three) for growing-stock inventory on other private timberland is $3,639.5 \pm 108.8$ million cubic feet.

County statistics are provided, but users are cautioned that the accuracy of individual county data is highly variable. Individual county statistics are provided so that any combination of counties may be added together until the totals are large enough to meet the desired degree of reliability. Sampling errors for key resource items for individual counties are provided in the following table.

Sampling errors for county and unit totals, in terms of one standard error, Northern Coastal Plain of South Carolina, 1992

			ic-foot vo	
county	Timberland area	Inventory	Growth	Removals
		Sampling 6	error*	
Berkeley	0.75	8.77	20.38	17.08
Charleston	1.72	9.79	28.93	20.70
Chesterfield	1.42	9.21	25.09	21.87
Clarendon	2.14	13.18	41.52	27.51
Darlington	1.98	13.59	49.81	30.90
Dillon	2.18	12.00	18.30	29.88
Florence	1.32	8.70	118.40	19.70
Georgetown	1.12	8.05	24.13	19.37
Horry	1.08	8.55	10.01	18.24
Kershaw	1.23	9.31	14.37	18.92
Lee	4.04	15.82	245.97	48.88
Marion	1.38	12.39	14.85	19.84
Marlboro	2.51	9.07	14.21	30.52
Richland	1.81	7.81	9.78	22.80
Sumter	1.84	10.99	85.20	27.47
Williamsburg	1.15	8.12	275.89	18.88
Total	0.38	2.40	27.15	5.88

By random-sampling formula (in percent).

Definitions

Basal area. The area in square feet of the cross section at breast height of a single tree or of all the trees in a stand, usually expressed in square feet per acre.

Biomass. The aboveground green weight of solid wood and bark in live trees 1 .O inch d.b.h. and larger from the ground to the tip of the tree. All foliage is excluded. The weight of wood and bark in lateral limbs, secondary limbs, and twigs under 0.5 inch in diameter at the point of occurrence on sapling-size trees is included but is excluded on poletimber and sawtimber-size trees.

Bole. That portion of a tree between a I-foot stump and a **4-inch** top diameter outside bark **(d.o.b.)** in trees 5.0 inches d.b.h. and larger.

Broad management class. A classification of timberland based on forest type and stand origin.

Pine plantation. Stands that have been artificially regenerated by planting or direct seeding and with a southern yellow pine, white pine-hemlock, or other softwood forest type.

Natural pine. Stands that have not been artificially regenerated and with a southern yellow pine, white pine-hemlock, or other softwood forest type.

Oak-pine. Stands with a forest type of oak-pine.

Upland hardwood. Stands with a forest type of oak-hickory, chestnut oak, southern scrub oak, or maple-beech-birch.

Lowland hardwood. Stands with a forest type of oak-gum-cypress, elm-ash-cottonwood, palm, or other tropical.

Census water. Streams, sloughs, estuaries, canals, and other moving bodies of water 200 feet wide and greater, and lakes, reservoirs, ponds, and other permanent bodies of water 4.5 acres in area and greater.

Commercial forest land. (see: Timberland).

Commercial species. Tree species currently or potentially suitable for industrial wood products. Noncommercial species are excluded.

Cropland. Land under cultivation within the past 24 months, including orchards and land in soil-improving crops but excluding land cultivated in developing improved pasture. Also includes idle farmland.

D.b.h. Tree diameter in inches (outside bark) at breast height (4.5 feet above the ground).

Diameter class. A classification of trees based on tree d.b.h. Two-inch diameter classes are commonly used by Forest Inventory and Analysis. with the even inch as the approximate midpoint for **a** class. For example, the 6-inch class includes trees 5.0-6.9 inches d.b.h.

Farm. Land on which agricultural operations are being conducted and sale of agricultural products totaled \$1,000 or more during the year.

Farm operator. A person who operates a farm, either doing the work or directly supervising the work.

Farmer-owned land. (see: Other private land).

Forest Industry land. Land owned by companies or individuals operating primary wood-using plants.

Forest industry-leased land. Land leased or under management contracts to forest industry from other owners for periods of one forest rotation or longer. Land under cutting contracts is not included.

Forest land. Land at least 16.7 percent stocked by forest trees of any size, or formerly having had such tree cover, and not currently developed for nonforest use.

Forest type. A classification of forest land based on the species forming a plurality of live-tree stocking.

White pine-hemlock. Forests in which eastern white pine, red pine, or jack pine, singly or in combination, constitute a plurality of the stocking. (Common associates include hemlock, birch, and maple.)

Spruce-fir. Forests in which spruce or true firs, singly or in combination, constitute a plurality of the stocking. (Common associates include maple, birch, and hemlock.)

Longleaf-slash pine. Forests in which longleaf or slash pine, singly or in combination, constitute a plurality of the stocking. (Common associates include oak, hickory, and gum.)

Loblolly-shortleaf pine. Forests in which loblolly pine, shortleaf pine, or other southern yellow pines, except longleaf or slash pine, singly or in combination, constitute a plurality of the stocking. (Common associates include oak, hickory, and gum.)

Oak-pine. Forests in which hardwoods (usually upland oaks) constitute a plurality of the stocking but in which pines account for 25 to 50 percent of the stocking. (Common associates include gum, hickory, and yellow-poplar.)

Oak-hickory. Forests in which upland oaks or hickory, singly or in combination, constitute a plurality of the stocking, except where pines account for 5 to 50 percent, in which case the stand would be classified oak-pine. (Common associates include **yellow-**poplar, elm, maple, and black walnut.)

Oak-gum-cypress. Bottom-land forests in which tupelo, blackgum, sweetgum, oaks, or southern cypress, singly or in combination, constitue a plurality of the stocking, except where pines account for 25 to 50 percent, in which case the stand would be classified oak-pine. (Common associates include cottonwood, willow, ash, elm, hackberry, and maple.)

Elm-ash-cottonwood. Forests in which elm, ash, or cottonwood, singly or in combination, constitute a plurality of the stocking. (Common associates include willow, sycamore, beech, and maple.)

Maple-beech-birch. Forests in which maple, beech, or yellow birch, singly or in combination, constitute a plurality of the stocking. (Common associates include hemlock, elm, basswood, and white pine.)

Palm, other tropicals. Forests in which palms and other tropicals constitute a plurality of the stocking.

Gross **growth.** Annual increase in merchantable volume of trees in the absence of cutting and mortality. (Gross growth includes survivor growth, ingrowth, growth on ingrowth, growth on removals prior to removal, and growth on mortality prior to death.)

Growing-stock trees. Live sawtimber-size trees of commercial species containing at least a 12-foot log, or two noncontiguous saw logs each 8 feet or longer, meeting minimum grade requirements (hardwoods must qualify as a log grade of either 3 or 4; softwoods must qualify as a log grade 3) with at least one-third of the gross board-foot volume (International I/4-inch rule) between a I-foot stump and the minimum saw-log top being sound, or a live tree below sawtimber size that will prospectively qualify under the above standards.

Growing-stock volume. Volume (cubic feet) of solid wood in growing-stock trees 5.0 inches d.b.h. and larger, from a l-foot stump to a minimum 4.0-inch top diameter, outside bark, on the central stem. Volume of solid wood in primary forks from the point of occurrence to a minimum 4.0-inch top diameter outside bark is included.

Hardwoods. Angiosperms; dicotyledonous trees (including all palm species which are monocotyledonous), usually broadleaf and deciduous.

Soft hardwoods. Soft-textured hardwoods such as boxelder, red and silver maples, hackberry, loblolly-bay, sweetgum, yellow-poplar, magnolia, sweetbay, water tupelo, blackgum, sycamore, cottonwood, black cherry, willow, basswood, and elm.

Hard hardwoods. Hard-textured hardwoods such as sugar maple, birch, hickory, dogwood, persimmon (forest grown), black locust, beech, ash, honeylocust, holly, black walnut, mulberry, and all commercial oaks.

Idle farmland. Cropland, orchard, improved pasture, and farm sites not tended within the past 2 years, and currently less than 16.7 percent stocked with live trees.

improved pasture. Land currently improved for grazing by cultivation, seeding, irrigation, or clearing of trees or brush.

Industrial wood. All roundwood products except fuelwood.

Ingrowth. The number or net volume of trees that grow large enough during a specified year to qualify as saplings, poletimber, or sawtimber.

Land area. The area of dry land and land temporarily or partly covered by water such as marshes, swamps, and river floodplains (omitting tidal flats below mean high tide), streams, sloughs, estuaries, and canals less than 200 feet wide, and lakes, reservoirs, and ponds less than 4.5 acres in area.

Live **trees**. All trees 1 .O inch **d.b.h**. and larger which are not dead at the time of inventory.

Live-tree volume. Volume (cubic feet) of wood above the ground line in live trees 1 .O inch d.b.h. and larger. The volume in twigs and lateral limbs smaller than 0.5 inch in diameter at the point of occurrence on sapling-size trees is included but is excluded on poletimber and **sawtimber**-size trees.

Log grade. A classification of logs based on external characteristics as indicators of quality or value.

Logging residues. The unused merchantable portion of growing-stock trees cut or destroyed during logging operations.

Manageable stand. Timberland at least 60 percent stocked with growing-stock 'trees that can be featured together under a management scheme.

Merchantable portion. That portion of live trees 5.0 inches d.b.h. and larger between a l-foot stump and a minimum 4.0-inch top diameter outside bark on the central stem. That portion of primary forks from the point of occurrence to a minimum 4.0-inch top diameter outside bark is included.

Merchantable volume. Solid-wood volume in merchantable portion of live trees.

Miscellaneous Federal land. Federal land other than National forests, land administered by the Bureau of Land Management, and land administered by the Bureau of Indian Affairs.

Miscellaneous private land. (see: Other private land).

Mortality. The merchantable volume in trees that have died from natural causes during a specified period.

National forest land. Federal land that has been legally designated as national forests or purchase units, and other land under the administration of the Forest Service, including experimental areas and Bankhead-Jones Title III land.

Net annual growth. The net change in merchantable volume for a specific year in the absence of cutting (gross growth minus mortality for that specified year).

Net volume. Gross volume of wood less deductions for rot, sweep, or other defect affecting use for timber products.

Noncommercial species. Tree species of typically small size, poor form, or inferior quality which normally do not develop into trees suitable for industrial wood products.

Nonforest land. Land that has never supported forests and land formerly forested where timber production is precluded by development for other uses.

Nonindustrial private forest (NIPF) land. (see: Other private land).

Nonstocked forest land. Timberland less than 16.7 percent stocked with growing-stock trees.

Other private land. Privately owned land excluding forest industry land or forest industry-leased land. Also referred to as nonindustrial private forest (NIPF) land.

Farmer-owned land. Owned by farm operators, excluding incorporated farm ownerships.

Other individual land. Owned by individuals other than farm operators.

Other corporate land. Owned by corporations, including incorporated farm ownerships.

Other removals. The growing-stock volume of trees removed from the inventory by cultural operations such as timber stand improvement, land clearing, and other changes in land use that result in the removal of the trees from timberland.

Plant residues. Wood material generated in the production of timber products at primary manufacturing plants.

Coarse residues. Material, such as slabs, edgings, trim, veneer cores and ends, which is suitable for chipping.

Fine residues. Material, such as sawdust, shavings, and veneer chippings, which is not suitable for chipping.

Plant byproducts. Residues (coarse or fine) utilized in the further manufacture of industrial products or for consumer use, or utilized as fuel.

Unused plant residues. Residues (coarse or fine) that are not used for any product, including fuel.

Poletimber-size trees. Live trees at least 5.0 inches d.b.h. but smaller than sawtimber size.

Primary wood-using plants. Industries that receive roundwood or chips from roundwood for the manufacture of products such as veneer, pulp, and lumber.

Productive-reserved forest land. (see: Reserved timberland).

Rangeland. Land on which the natural vegetation is predominantly native grasses, grasslike plants, forbs, or shrubs valuable for forage, not qualifying as timberland and not developed for another land use. Rangeland includes natural grassland and Savannah.

Reserved timberland. Forest land sufficiently productive to qualify as timberland, but withdrawn from timber utilization through statute or administrative designation.

Rotten trees. Live trees of commercial species that do not contain at least one 1 P-foot saw log, or two non-contiguous saw logs, each 8 feet or longer, now or prospectively, primarily because of rot or missing sections, and with less than one-third of the gross board-foot tree volume in sound material.

Rough trees. Live trees of commercial species that do not contain at least one 12-foot saw log, or two non-contiguous saw logs, each 8 feet or longer, now or prospectively, primarily because of roughness, poor form, splits, and cracks, and with less than one-third of the gross board-foot tree volume in sound material; and live trees of noncommercial species.

Roundwood (roundwood logs). Logs, bolts, or other round sections cut from trees for industrial or consumer uses.

Roundwood chipped. Any timber cut primarily for pulpwood, delivered to nonpulpmills, chipped, and then sold to pulpmills as residues, including chipped tops, jump sections, whole trees, and pulpwood sticks.

Roundwood products. Any primary product such as lumber, poles, pilings, pulp, or **fuelwood** which is produced from roundwood.

Salvable dead trees. Standing or down dead trees considered utilizable by Forest Inventory and Analysis standards.

Saplings. Live trees 1 .O to 5.0 inches d.b.h.

Saw log. A log meeting minimum standards of diameter, length, and defect, including logs at least 8 feet long, sound and straight, and with a minimum diameter inside bark for softwoods of 8 inches (8 inches for hardwoods).

Saw-log portion. That part of the bole of sawtimber trees between a I-foot stump and the saw-log top, including the portion of forks large enough to contain a saw log.

Saw-log top. The point on the bole of sawtimber trees above which a conventional saw log cannot be produced. The minimum saw-log top is 7.0 inches in diameter outside bark (d.o.b.) for softwoods and 9.0 inches (d.o.b.) for hardwoods.

Sawtimber-size trees. Softwoods 9.0 inches d.b.h. and larger and hardwoods 11 .O inches d.b.h. and larger.

Sawtimber volume. Growing-stock volume in the **sawlog** portion of sawtimber-size trees in board feet (International **1/4-inch** rule).

Seedlings. Trees less than 1 .O inch in d.b.h. Only seedlings of a commercial species **that** are not overtopped and are more than 8 inches tall for softwoods and 1 foot tall for hardwoods are counted.

Site class. A classification of forest land in terms of inherent capacity to grow crops of industrial wood based on fully stocked natural stands, by annual production capacity.

Softwoods. Gymnosperms; in the order Coniferales, usually evergreen (includes the genus *Taxodium* which is deciduous), having needles or scalelike leaves.

pines. Yellow pine species which include **loblolly**, longleaf, slash, pond, shortleaf, pitch, Virginia, sand, spruce, and Table Mountain pines.

Other softwoods. Cypress, eastern red-cedar, white cedar, eastern white pine, eastern hemlock, spruce, and fir.

Stand-size class. A classification of forest land based on the diameter class distribution of live trees in the stand.

Sawtimber stands. Stands at least 18.7 percent stocked with live trees, with half or more of total stocking in sawtimber and poletimber trees, and with sawtimber stocking at least equal to poletimber stocking.

Poletimber stands. Stands at least 16.7 percent stocked with live trees, of which half or more of total stocking is in poletimber and sawtimber trees, and with poletimber stocking exceeding that of sawtimber.

Sapling-seedling stands. Stands at least 16.7 percent stocked with live trees of which more than half of total stocking is saplings and seedlings.

State, county, and municipal land. Land owned by States, counties, and local public agencies or municipalities, or land leased to these governmental units for 50 years or more.

Stocking. The degree of occupancy of land by trees, measured by basal area or the number of trees in a stand and spacing in the stand, compared with a minimum standard, depending on tree size, required to fully utilize the growth potential of the land.

Fully stocked. 100 percent or more stocking.

Medium stocked. 60 to 99 percent stocking.

Poorly stocked. Less than 60 percent stocking.

Density of trees and basal area per acre required for full stocking

D.b.h. class	Trees per acre for full stocking	Basal area per acre
Seedlings	600	
2	560	
4	460	
6	340	6 7
6	240	84
1 0	155	8 5
12	115	90
1 4	90	9 6
16	7 2	101
18 20	60 51	106 111

Survivor growth. The merchantable volume increment on trees 5.0 inches d.b.h. and larger in the inventory at the beginning of the year and surviving to its end.

Timberland. Forest land that is capable of producing 20 cubic feet of industrial wood per acre per year and not withdrawn from timber utilization.

Timber products. Roundwood products and byproducts.

Timber removals. The merchantable volume of **trees** removed from the inventory by harvesting, Cultural operations such as stand improvement, land clearing, or changes in land use.

Top. The portion of the main stem and forks from a 4.0-inch diameter outside bark to the tips of the main stem and forks, plus all other limbs above the 4.0-inch top at least 0.5 inch in diameter at their point of occurrence.

Treatment opportunity. A classification of the management or treatment that would most improve for timber production the existing condition of the stand being sampled.

Tree. Woody plants having one erect perennial stem or trunk at least 3 inches **d.b.h.**, a more or less definitely formed crown of foliage, and a height of at least 13 feet.

Tree **grade.** A classification of sawtimber trees based on the log grade of the butt log in the tree.

Unproductive forest land. (see: Woodland).

Upper-stem portion. That part of the main stem or fork of sawtimber trees above the saw-log top to minimum top diameter 4.0 inches outside bark or to the point where the main stem or fork breaks into limbs.

Urban and other areas. Areas developed for residential, industrial, or recreational purposes, school yards, cemeteries, roads, railroads, airports, beaches, powerlines and other rights-of-way, or other nonforest land not included in any other specified land use class.

Woodland. Forest land incapable of producing 20 cubic feet per acre per year of industrial wood under natural conditions, because of adverse site conditions.

CONVERSION FACTORS

Cubic feet of wood per average cord (excluding bark)

D.b.h.	AII		Other	
class	species	Pine	softwood	Hardwood
6	60.5	61 . 0	66.2	60.0
6	66.5	66.1	76.0	66.4
1 0	73.5	73.1	61.4	73.4
1 2	76.6	76.7	65.2	76.4
1 4	79.1	79.4	66.2	76.4
1 6	60.9	61.6	90.4	79.6
16	62.4	63.3	92.3	60.6
20	63.2	64.6	93.6	61.5
22	64.5	66.0	95.1	62.1
24+	65.0	67.9	97.3	63.1
Average	74.9	74.6	67.0	74.4

Metric equivalents of units used in this report

1 acre = 4,046.86 square meters or 0.404666 hectare

Breast height (4.5 feet) = 1.4 meters above ground level

¹ **cubic** foot = 0.026317 cubic meter

¹ inch = 2.54 centimeters or 0.0254 meter

¹ square foot **=** 929.03 square **centimeters** or 0.0929 square meter

¹ square foot per acre basal area = 0.229566 square meter per hectare

¹ pound = 0.454 kilogram

¹ ton = 0.907 metric ton

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Table 1--Area, by county and land class, Northern Coastal Plain of South Carolina, 1992

County	All land*	Total	Timberland	Woodland	Reserved timberland	Nonforest land ^b
			Acres			
Berkeley	703,712	552, 928	548, 104		4,824	150,784
Charleston	587,149	285,718	270, 370	au ==	15, 348	301,488
Chesterfield	511,220	389,397	381, 872		7, 525	141,828
Clarendon	388, 840	222,851	221, 802		849	185,989
Darlington	359,718	191,840	188, 885		2,975	187,878
Dillon	259,129	145,518	144, 487		1,051	113,811
Florence	511,494	294,099	293, 435		884	217,395
Georgetown	521,511	881,897	379, 227		2,470	139,814
Horry	725, 574	480,178	449,009		11,187	285, 398
Kershaw	484, 832	378, 508	375, 934		574	88, 324
Lee	282, 811	138, 448	135, 885	···	2, 581	124, 185
Marion	313,024	219, 553	217, 523		2,030	93,471
Marlboro	307,021	184,752	184,702	-	50	122,269
Richland	484,188	323, 780	302,521		21, 259	180, 406
Sumter	425, 894	237,791	235, 443	vice war	2, 348	188, 103
Williamsburg	597,780	409,310	409,310			188, 450
Total	7,423,475	4,794,162	4,718,449		75,713	2,629,313

^a From the U.S. Bureau of the Census, 1990.

Table 2- - Area of timberland, by county and ownership class, Northern Coastal Plain of South Carolina, 1992

		Ownershipclass								
	All	National	Miscellaneous		County and	Forest		Other private	;	
County	ownerships	forest	Federal	Stale	municipal	industry*	Farmer	Corporate	Individual	
					Acres					
Berkeley	546,104	163,769	9,516	16,157	221	162,595	51,419.	34,279	66,146	
Charleston	270,370	47,145	646	9,162	4,972	53,846	27,159	37,604	69,632	
Chesterfield	361,672		43,150	43,445	440	35,674	116,001	27,640	95,122	
Clarendon	221,602		2,426	4,714	46	44,311	62,646	25,045	62,612	
Darlington	166,665		1,010	1,600	417	29,126	73,746	21,509	61,455	
Dillon	144,467			. 9	46	32,747	66,522	10,151	32,992	
Florence	293,435			2,041	906	49,953	119,053	26,726	94,766	
Georgetown	379,227			4,416	275	206,665	19,206	60,016	66,425	
Horry	449,009	-	1,676	523	1,208	104,690	134,692	76,463	127,535	
Kershaw	375,934			594	1,693	69,793	50,224	65,291	166,339	
Lee	135,665		70	10	147	12,643	40,932	5,456	76,405	
Marion	217,523	***	** =	10	046	92,660	50,771	·	73,336	
Marlboro	164,702				105	57,762	67,577	16,119	21,139	
Richland	302,521		47,614	4,364	644	24,124	16,431	73,722	133,622	
Sumter	235,443		275	44,623	425	12,956	62,311	37,366	77,265	
Williamsburg	409,310				50	86,074	143,050	29,140	150,996	
Total	4,718,449	230,914	106,389	133,870	12,441	1,078,145	1,145,942	550,771	1,459,977	

² Includes 36,445 acres of other private land underlong—term lease.

^b Includes 14,454 acres of water according to Forest Inventory and Analysis standards of ares chssification, but defined by the Bureau of Census as land.

Table 3--Area of timberland, by county and forest-type group, Northern Coastal Plain of South Carolina, 1992

		Forest-type group								
All type county groups		White pine hemlock	Spruce- fir	Longleaf- slash	Lobiolly – shottleaf	Oak- pine	Oak- hickory	Oak-gum- cypress	Elm-ash- cottonwood	Maple-beech- birch
						Acres				
Berkeley	548, 104			24, 587	281, 787	75, 389	28, 874	155, 470	2, 197	
Charleston	270, 370			15, 048	93, 179	52, 459	22, 139	87, 547		
Chesterfiild	381, 872			79, 125	93, 123	88, 899	78, 880	41, 818	2,248	
Clarendon	221, 802				50, 949	48, 894	15, 550	103, 843	2,788	
Darlington	188, 865			3, 073	49, 010	57, 201	38, 875	37, 298	5,410	
Dillon	144, 487				49, 558	24,939	12, 888	54, 748	2,538	
Florence	293, 435			5, 870	99, 882	43, 731	31, 588	109, 543	3, 241	
Georgetown	379, 227			17, 048	182, 752	42, 275	14, 849	122, 503		
Horry	449,009			11,045	185,000	59, 984	44,823	188, 157		
Kershaw	375, 934			52, 119	129, 283	82, 011	81, 717	45, 797	5,022	
Lee	135, 865				85, 885	10,540	24, 184	35, 258		
Marion	217, 523			5, 134	57, 844	29, 508	35, 147	84, 758	5, 134	-
Marlboro	184, 702			8, 208	82, 239	11, 274	27, 547	75, 434		
Rihland	302, 521			23, 387	100, 532	81, 777	58, 889	57, 872	2,304	
Sumter Williamsburg	235, 443 409, 310			8, 151 13, 245	59, 700 121, 310	43, 044 59, 981	38, 473 59, 729	88, 075 155, 045		
Total	4,718,449			285,819	1,641,796	751,906	805,312	1,422,756	30, 880	

Table 4-Area of timberland, by county and stand-size class, Northern Coastal Plain of South Carolina, 1992

		Star	nd-size clas	s	
County	All stands	Sawtimber	Poletimber	Sapling – seedl i ng	Nonstocked areas
			Acres		
Berkel ey	548, 104	157, 221	123, 263	281, 088	8, 592
Charleston	270, 370	97,012	52, 254	118, 926	4, 178
Chesterfiel d	381, 872	118, 887	108, 055	128, 204	8, 928
Clarendon	221, 802	59, 194	41, 443	121, 185	
Darlington	188, 865	54, 897	51,045	82, 923	-
Dillon	144, 487	77, 353	29, 137	37, 977	
Florence	293, 435	119, 170	51, 124	123, 141	
Georgetown	379, 227	145, 406	83, 857	150, 164	
Horry	449, 009	224, 553	78, 499	145, 504	2, 453
Kershaw	375, 934	88, 852	108, 383	174, 081	4,838
Lee	135, 865	34, 052	33, 382	88, 431	
Marion	217, 523	83, 794	41, 595	92, 134	
Marlboro	184, 702	82, 527	59, 809	40, 724	1, 842
Richland	302, 521	127, 460	77, 473	93, 091	4, 497
Sumter	235, 443	89, 008	83, 933	100, 466	2, 038
Williamsburg	409, 310	135, 003	93, 489	170, 842	9, 998
Total	4,718,449	1,674,187	1,094,461	1,906,841	42, 960

Table 5— – Area of timberland, by county and site class, Northern Coastal Plain of South Carolina, 1992

County			Si i ecl ass (cu	bic feet per acre	per year)	
	All classes	>164	120-164	85- 119	50-84	20-49
			Ac	eres		
Berkel ey	548, 104		31, 752	195, 341	287, 558	33, 453
Charleston	270, 370		31, 614	98, 228	98, 240	42, 288
Chesterfield	381, 872		8,960	82, 615	183, 847	128, 650
Clarendon	221, 802		8, 037	80, 572	112, 188	21,005
Darl i ngton	188, 665		4, 429	48,638	111, 217	24, 581
Dillon	144, 487		2, 538	50, 399	86, 589	24, 941
Florence	293, 435		7, 290	70, 502	208, 354	7, 289
Georgetown	379, 227		9,844	97,086	227, 346	44, 971
Horry	449,009	2, 452	11, 821	111, 945	252, 880	69, 931
Kershaw	375, 934	2, 511	5, 023	48,682	234, 134	85, 584
Lee	135, 865			21, 291	91, 858	22, 916
Marion	217, 523		2, 314	81,864	119, 737	13, 608
Marl boro	184, 702		3, 282	66, 481	97, 934	17, 005
Richland	302, 521		4,808	57, 781	197, 508	42,846
Sumter	235, 443		4, 985	77, 031	123, 024	30, 403
Williamsburg	409, 310		12, 847	100, 817	246, 084	49, 982
Total	4,718,449	4,963	147, 144	1,269,033	2,638,056	659, 253

Table 6— Area of timberland, by county and stocking class of growing-stock trees, Northern Coastal Plain of South Carolina, 1992

			Stock	ing class (perc	ent) "	
	All					
county	classes	>130	100-130	60-99	16. 7- 59	<16.7
			Ad	cres		
Berkel ey	546, 104	14,007	167, 415	220, 071	117, 536	9, 075
Charleston	270, 370	10, 510	61, 721	120, 642	49, 076	6, 421
Chesterfield	361, 672	17,023	76, 046	158,293	62, 025	26, 465
Clarendon	221,602	11, 230	73, 636	69, 775	46, 961	
Darlington	166, 665	1, 026	62,743	99, 156	25, 936	
Dillon	144, 467	10, 151	51, 592	60,030	20, 156	2, 536
Florence	293, 435	4,660	97, 230	141, 639	41, 406	6, 100
Georgetown	379, 227	27,669	170, 423	136, 502	42, 032	2, 401
Horry	449, 00Q	44, 730	169, 066	176, 643	53, 524	4, 906
Kershaw	375, 934	10,044	92, 754	166, 740	86,690	19, 706
Lee	135, 665		51, 460	59, 969	24,396	
Marion	217, 523	15, 404	62, 243	109, 071	22, 651	7, 954
Marlboro	164, 702	7, 661	73, 776	72, 519	26,064	4,662
Richland	302, 521	2, 304	116, 175	120, 736	56, 609	4, 497
Sumter	235, 443	5, 261	59, 246	121, 566	45, 292	4,076
Williamsburg	409, 310	7, 346	129, 005	199, 064	55, 929	17, 943
Total	4,718,449	189,450	1,556,694	2,052,856	796, 665	120, 764

⁴ See stocking standards under "stocking" in definitions.

Table **7--** -Volume of growing stock and **sawtimber** on limberland, by county and species group, Northern Coastal Plain of South Carolina, 1992

		G	rowing stock	(Sawtimber					
	All		Other	Soft	Hard	All		Other	Soft	Hard			
County	species	Pi n8	softwood	hardwood	hardwood	species	Pi ns	softwood	hardwood	hardwood			
	_	Thou	sand cubic	feet			Thousand board feet						
Berkeley	511, 884	233, 007	34,954	154, 487	89,436	1,543,014	697, 441	124. 643	402, 752	318, 178			
Charleston	321, 076	125, 924	20, 162	109, 684	65,306	1,073,588	499, 425	76, 710	307,793	167, 660			
Chesterfield	389,990	207, 295	351	116, 065	64, 259	1,227,109	696,650		365,582	164, 877			
Clarendon	198, 120	50,022	21, 371	92,308	34, 419	546,882	167, 991	58, 826	225, 971	93,094			
Darlington	212, 297	91, 592	13, 912	60,900	45, 893	727, 573	399,733	66,285	182, 857	78,698			
Dillon	257, 637	91, 511	14, 234	115, 766	36, 126	951, 322	443,500	74,385	334, 765	98, 672			
Florence	355,296	133, 413	14, 271	135, 560	72,032	1,298,993	585,391	55, 274	450,024	208,304			
Georgetown	485,857	239,673	25, 859	159, 608	60,717	1,602,067	855, 217	104, 443	435, 774	206,633			
Horry	767, 671	294, 292	44,965	335,066	93, 348	2,726,614	1,326,776	179, 312	878,935	341,591			
Kershaw	296, 422	157, 144	3,717	80, 245	55, 316	827,020	452,099	13, 217	234,047	127, 657			
Lee	121, 773	64, 216		48,344	19, 213	375, 712	200, 130		131,593	43,989			
Mari on	353,450	72, 607	32, 762	169, 336	58, 745	1,152,386	291, 633	161, 777	522,000	176, 976			
Marl boro	316, 239	110,601	7, 161	152, 192	48, 265	1,014,422	402, 431	35, 678	417, 117	159, 196			
Richland	376, 276	167,403	4, 841	106, 556	99,474	1,258,356	644,652	9, 168	305, 611	298, 925			
Sumter	270, 409	77, 625	10, 264	131, 569	50,931	867,508	219, 194	39, 936	468,543	139, 835			
Williamsburg	412, 054	151,306	9, 058	140, 792	110, 898	1,290,581	556, 270	42, 174	329, 911	960, 226			
Total	5,650,451	2,257,631	257, 90	2 2,130,540	1,004,378	18,483,147	8,440,533	1,044,828	5993, 275	3,004,511			

Table 8--Average net annual growth of growing stock and sawtimber on timberland, by county and species group, Northern Coastal Plain of South Carolina, 1988-1991

			Growing s	tock		Sewtimber						
County	All species	Pine	Other softwood	Soft hardwood	Hard hardwood	All species	Pine	Other softwood	Soft hardwood	Hard hardwood		
		The	ousand cub	ic feet			Tho	ousand boar	d feet			
Berkeley	-32,021	27,879	272	-150	-4,264	- 179,559	– 162,476	1,413	657	-19,153		
Charleston	- 12,924	- 12,597	-442	125	-10	-72,133	-66,869	- 1,763	-1,112	-2,389		
Chesterfield	12,252	8,464	31	2,464	1,293	38,763	24,735		11,075	2,953		
Clarendon	-9,962	w 2,933	473	-2,217	-5,305	-60,822	-26,602	644	-10,517	-24,347		
Darlington	5,753	4,003	-86	1 ,280	556	12,790	12,636	-80	3,049	-2,815		
Dilbn	6,520	5,014	352	2,577	577	41,684	27,234	2,235	10,612	1,543		
Florence	1,930	970	39	2,601	 1,680	7,414	ii ,849	- 3 5	7,793	-12,193		
Georgetown	11,348	10,678	378	1,608	-1,516	34,941	34,369	2,038	4,275	-5,741		
Horry	21,396	12,556	856	7,080	904	95,812	65,550	4,065	23,754	2,423		
Kershaw	12,963	8,889	74	2,204	1,796	47,800	31,998	119	7,519	8,164		
Lee	= 1,427	645	2	-1,615	-659	-11,560	516	14	-a,554	-3,536		
Marion	10,605	4,049	71	4,993	1,492	37,688	16,918	722	15,099	4,949		
Marlboro	12,646	7,078	124	3,869	1,575	57,677	35,150	738	13,674	8,115		
Richland	16,054	9,381	78	3,160	3,435	62,356	38,969	16	9,748	13,625		
Sumter	-4,614	-3,149	141	326	1 ,934	-34,550	-27,791	274	2,819	-9,852		
Williamsburg	- 1,366	404	- 5 9	1,532	-3,243	-16,651	-6,408	-250	4,684	-14,677		
Total	51,133	25,973	2,304	29,839	-6,983	61,652	9,778	10,230	94,575	-52,931		

Table 9——Average annual removals of growing stock and sawtimber on timberland, by county and species group, Northern Coastal Plain of South Carolina, 1986—1991

			Growing	stock			Sewtimber					
County	All species	Pine	Other softwood	soft hardwood	Herd hardwood	All species	Pine	Other softwood	Soft hardwood	Herd hardwood		
		Thou	sand cubic	feet			Tho	usand board	d feet			
Berkeley	20,440	15,714		1,737	2,989	73,828	57,736		3,428	12,662		
Charleston	16,166	12,412		1,162	2,614	76,064	66,045		4 000	8,050		
Chesterfield	11,025	6,629		3,030	1,366	41,007	23,765		13,303	3,919		
Ckuendon	14,705	7,647	411	4,071	2,376	65,566	41,413	1,987	13,331	8,865		
Darlington	7,821	5,274		669	1,878	31,602	24,701		2,262	4,639		
Dillon	6,251	3,328		1,157	1,766	22,622	14,278		2,627	5,417		
Florence	23,256	1 5,897	1,691	2,616	3,046	108,962	al ,597	9,041	6,368	11,956		
Georgetown	19,441	16,386		979	2,076	70,542	63,461		1,909	5,172		
Horry	26,876	21,118	767	4,153	2,838	125,336	99,442	3,61 a	11,843	10,435		
Kershaw	19,169	15,032		2,342	1,795	75,042	59,945		9,776	5,321		
Lee	5,094	4,644	104	100	246	17,130	15,656	486	378	370		
Marion	24,665	12,061	545	7,421	4,826	107,666	60,471	2,174	25,740	19,301		
Mariboro	5,013	2,830		1,448	735	14,811	6,045		5,196	3,568		
Richland	la640	a,752	345	4,933	4,610	77,827	36,574	1,622	17,665	19,466		
Sumter	11,627	5,196	101	5,233	1,097	46,214	21.264	518	19,357	5,055		
Williamsburg	29,975	17,576	604	6,537	5,256	128,545	<u>al ,840</u>	3,233	23,544	19926		
Total	262,400	170,728	4,568	47,566	39,516	1,082,896	756,575	22,879	159,318	144,124		

Table 10——Area of timberland, by forest type and ownership class, Northern Coastal Plain of South Carolina, 1992

			Owr	ership class		
					Forest	
	All	National	Other	Forest	industry-	Other
Forest type	ownerships	forest	public	industry	leased	private
			Ac	res		
Softwood types						
White pine-hemlock						
Spruce-fir						
Longleaf pine	170,055	18,703	66,453	6,892		78,007
Slash pine	95,764	2,483	29,297	26,479		37,505
Loblolly pine	1,530,603	83,274	46,963	512,988	17,104	870,274
Shortleaf pine	7,134					7,134
Virginia pine						
Sand pine						
Eastern redcedar	4,607					4,607
Pond pine	99,452	2,484	10,960	27,554		58,454
Spruce pine						
Pitch pine						
Table Mountain pine						
Total	1,907,615	106,944	153,673	573.913	17,104	1,055,981
Hardwood types						
Oak-pine	751,908	37,404	33,256	85,374	12,897	582,975
Oak-hickory	524,665	8,110	14,900	50,245		451,430
Chestnut oak	·	·	·	·		
Southern scrub oak	80,627		12,212	4,320		64,095
Oak-gum-cypress	1,422,756	78,456	38,659	315,082	1,034	989,525
Elm-ash-cottonwood	30,860			12,766	5,410	12,684
Maple-beech-birch						
Total	2,810,834	123,970	99,027	467.787	19,341	2,100,709
All types	4,718,449	230,914	252,700	1,041,700	36,445	3,156,690

Table 11 -- Area of timberland, by ownership and stocking classes of growing-stock trees, Northern Coastal Plain of South Carolina, 1992

			Stoc	king class (perc	cent)'	
Ownership class	All classes	>130	100-130	60-99	16. 7- 59	<16.7
			Ad	cres		
National forest	230, 914	4,967	65, 251	63, 425	54, 766	2, 463
Other public	252, 700	6, 465	75, 996	79, 914	60, 622	9, 661
Forest industry Forest industry-leased	1,041,700 36, 445	58,060 1, 026	450, 944 17, 012	371, 132 16, 739	139, 252 1, 666	22, 312
Other private	3,156,690	116, 910	927, 469	1,501,646	522, 357	66, 266
All ownerships	4,718,449	169, 450	1,556,694	2,052,856	796, 665	120, 764

 $^{{\}mbox{\sc a}}$ See stocking standardsunder "stocking" in defi ni ti ons.

Table 12 -- Area of timberland, by forest type and stand-size class, Northern Coastal Plain of South Carolina, 1992

		S	tand -size class		
Forest type	All stands	Sawtimber	Poletimber	Sapling - seedling	Nonstocked areas
			Acres		
Softwood types					
White pine-hemlock					
Spruce-fir					
Longleaf pins	170, 055	65, 719	35, 972	44, 633	3, 731
Slash pine	95, 764	29, 066	37, 491	26, 696	2, 511
Loblolly pine	1,530,603	461, 259	341, 296	716, 264	11, 762
Shortleaf pine	7, 134		4,623	2, 511	
Virginia pine					
Sand pine					
Eastern redcedar	4,607		2, 304	2, 303	
Pond pine	99, 452	35, 646	23, 346	40, 256	
Spruce pine					
Pitch pine					
Table Mountain pine					
Total	1,907,615	611, 692	445, 036	632, 663	16. 024
lardwood types					
Oak-pine	751, 906	166,606	146, 332	431, 797	4,969
Oak-hickory	524, 685	156, 999	133, 706	229, 354	4,624
Chestnut oak		´	´	,	´
Southern scrub oak	60, 627		19, 371	56, 643	4,413
Oak-gum -cypress	1,422,756	726, 235	342, 796	340, 793	10, 930
Elm-ash-cottonwood	30, 660	10, 253	5, 216	15, 391	
Maple-beech-birch	·		,	·	
Total	2. 610. 634	1,062,295	649, 425	<u>1,074,178</u>	24, 936
All types	4,718,449	1,674,187	1,094,461	1,906,841	42, 960

Table Ia-- Area of timberland, by stand-age and broad management classes, all ownerships, Northern Coastal Plain of South Carolina, 1992

			Broad	management	class	
Stand-age class (years)	AII classes	Pine plantation	Natural pine	Oak-pine	Upland hardwood	Lowland hardwood
			Acre	es		
0-10	1,369,043	450, 782	285, 454	297, 555	151, 805	203, 447
11-20	492, 395	177, 832	107, 122	91, 744	44, 731	70, 988
21-30	387, 817	131, 247	124, 285	37, 089	37, 248	37, 970
31-40	373, 998	81, 830	114, 308	35, 992	38, 888	103, 202
41-50	359, 313	8, 399	139, 349	49, 003	83, 911	100, 851
51-60	315, 805		88, 025	38, 154	40,808	152, 818
61-70	250, 971		54, 202	28, 042	19, 147	151, 530
71-80	132, 983		22, 115	8, 011	4,519	98, 343
81+	218, 813	***	13, 870	12, 917	7, 234	184, 992
No manageable stand	837, 506	21, 875	111, 520	157, 419	197, 045	349, 847
All classes	4,718,449	889, 585	1,038,050	751, 908	805, 312	1,453,616

Table 14-- Area of timberland, by stand-age and broad management classes, public ownerships, Northern Coastal Plain of South Carolina, 1992

	_		Broad	management	class	
Stand-age class (years)	All classes	Pine plantation	Natural pine	Oak-pine	Upland hardwood	Lowland hardwood
			Acı	es		
0- 10	94, 840	14,802	41, 388	19, 409	10, 385	9,078
11-20	34, 583	4,522	11, 775	10, 147		8, 139
21-30	38, 523	13, 483	18, 789	2, 801	545	925
31-40	70, 325	38, 001	18, 788			13, 538
41-50	28, 445		10, 943	8, 217		7, 285
51-60	34,889		18, 819		2,800	15, 270
61-70	38, 833		18, 191			18, 842
71-80	15,007		9, 930			5,077
81+	28, 472		8, 482		2, 434	19, 528
No manageable stand	105, 897	2, 287	34, 879	30, 088	19, 008	19, 837
All classes	483, 814	72, 875	187, 742	70, 880	35, 222	117, 115

Table 15-- Area of timberland, by stand-age and broad management classes, forest **industry**, a Northern Coastal Plain of South Carolina, 1992

			Broa	nd management	class	
Stand -age class (years)	All classes	Pi ne pl antati on	Natural pi ne	0ak- pi ne	Upl and hardwood	Lowl and hardwood
			A	cres		
0-10	316, 513	203, 157	22, 726	43, 305	12, 772	36, 551
11-20	156, 320	106, 091	23, 724	10, 966	7, 207	10, 312
21-30	123, 640	67, 663	20, 501	6,646		6,626
31-40	79, 140	25, 765	34, 667	4, 402	2, 353	11, 733
41-50	52, 300	1, 642	23, 467	3, 639	2, 246	21, 104
51-60	59, 397		14, 361	11, 166		33, 626
61-70	41, 306			2, 316	4, 511	34, 477
71-80	13, 172					13, 172
81+	75, 066			-		75, 066
No manageable stand	157,269	4,770	22, 041	13, 565	25, 474	91, 399
All classes	1,078,145	429, 306	161, 709	96, 271	54, 565	334, 292

^a Includes 36,445 acres of other private land under long-term lease.

Table 16-- Area of timberland, by stand-age and broad management classes, other private ownerships,* Northern Coastal Plain of South Carolina, 1992

			Broad	l management	class	
Stand-age class (years)	All classes	Pi ne pl antati on	Natural pi ne	0ak- pi ne	Upl and hardwood	Lowl and hardwood
			Acre	S		
0-10	955, 690	233, 023	201, 360	234, 641	126, 646	157, 616
11-20	299, 492	67, 219	71, 623	70, 611	37, 524	52, 515
21-30	207, 654	29, 921	64, 995	25,620	36, 701	30, 417
31-40	224, 533	17,644	60, 653	31, 590	36, 513	77, 933
41-50	260, 566	4, 757	104, 939	36, 947	61, 663	72, 262
51-60	221, 519	,	55, 025	24, 966	36,006	103, 520
61-70	172,632		36, 011	23, 724	14,636	96, 461
71-80	104, 609		12, 165	6, 011	4, 519	60, 094
81+	115, 253		7, 206	12, 917	4,750	90, 376
Nomanageablestand	574, 340	14, 616	54, 600	113, 746	152, 563	236, 611
All classes	3,156,690	367, 362	666, 599	562, 975	515, 525	1,002,209

^a Excludes 36,445 acres of other private land under long-term lease to forest industry.

Table 17-- Area of timberland, by broad management and stand-volume classes, Northern Coastal Plain of South Carolina, 1992

	_			Stand -volume of growing sto		
Broad management class	All classes	o-499	500-999	1000-1499	1500-1999	2000+
			Ad	res		
Pine plantation	889,585	493,786	115,245	123,478	52,474	84,580
Natural pine	1,038,050	341,118	180,990	135,895	113,320	286,729
Oak-pine	751,906	356,623	167,541	95,301	56,720	75,721
Upland hardwood	605,312	290,969	91,861	73,663	52,521	96,098
Lowland hardwood _	1,453,616	322,203	196,576	220,938	1971960	515,939
All classes	4,718,449	1,804,699	732,213	649,475	472,995	1,059,067

Table 18--Volume of growing stock on timberland, by broad management class, species group, and stand-age class, Northern Coastal Plain of South Carolina, 1992

Broadmanagement class and	All	No				Stand-a	agecl ass(ye	ars)			
speci esgroup	cl asses	manageable _ stand	0- 10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81+
					Tho	usand cubic	feet				
Pine plantation Softwood Hardwood	616, 766 16, 126	7,694	27, 671 2,364	160, 351 5, 697	243, 603 5, 493	140, 246 2, 496	17,001 1,676			 	
Total	634,894	7,694	30. 035	166, 246	249, 296	142, 742	16, 679				
Natural pine Softwood Hardwood	1,165,716 167,691	36, 294 3, 061	66, 630 19, 650	63, 760 11, 366	159, 649 19, 451	175, 061 19, 351	306, 291 42,906	176, 636 22, 997	116, 255 19, 321	41, 615 4, 054	21, 065 5, 492
Total	_1,333,407_	39. 375	66. 260	75. 166	179. 100	194. 432	349,197	199, 633	135. 576	45. 669	26. 577
Oak-pine Softwood Hardwood	320, 144 282,269	49, 106 24, 729	42, 639 45, 612	20, 175 23, 760	20, 171 20, 432	35, 264 20, 367	55, 165 53, 953	41, 796 33, 769	26, 707 31, 796	13, 957 12, 416	13, 144 15, 215
Total	602. 413	73, 635	66. 451	43. 935	40, 603	55. 671	109. 116	75, 565	60. 503	26, 373	26. 359
Upland hardwood softwood Hardwood	61, 245 472, 096 533, 341	10, 432 66, 295 76, 727	6, 693 33, 164 39, 677	4, 602 27, 374 31, 976	9, 066 26, 697 37,965	3, 349 56, 260 61, 609	13, 360 106, 063 119, 463	6, 756 75, 997 64, 755	1, 997 50, 964 52,981	9, 304 9. 304	2,966 13,716
Lowland hardwood Softwood Hardwood	351, 662 2,194,734	21, 030 224, 930	6, 752 56, 775	7, 739 49, 766	5, 097 36, 407	21, 076 163,893	32, 940 173, 436	53, 542 344,392	47, 606 364, 725	32, 226 234, 680	121, 650 541, 726
Total	<u>2,546,396</u>	245,9 <u>60</u>	67. 527	57, 507	43.504	164, 971	206.376	397. 934	412.333	266906	663, 376
All types Softwood Hardwood	2,515,533 3,134,918	124, 556 321, 035	154, 365 159, 705	276, 647 116, 167	437, 766 112, 660	375, 036 264, 367	424, 777 376, 256	260, 932 477, 155	194, 567 466, 626	67, 996 260, 454	158, 645 576, 151
Total	5,650,451	445, 591	314, 170	394, 634	550, 466	639, 425	603, 035	756, 067	661, 393	346, 452	734,996

Table 19 - Average net annual growth of growing stock on timberland, by broad management class, species group, and stand-age class, Northern Coastal Plain of South Carolina, 1986-1991

Broadmanagement class and	All	No manageabl e				Stand-	age classa (years)			
speci esgroup	classes	stand	0-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81+
					Thou	usand cubic	feet				
Pine plantation softwood	52, 666	40	20, 573	26, 976	3, 963	1, 943	- 607				
Hardwood	970		212	402	257	37	62				
Total =	53, 656	40	20, 765	27, 376	4, 220	1. 960	- 745				
Natural pine											
softwood Hardwood	- 26, 742 5, 963	1, 093 26	1, 624 417	9, 654 932	- 1, 172 1, 056	- 2, 146 1, 204	- 13, 640 1, 294	- 10, 155 976	- 4, 026 - 11	- 2, 996 - 6	- 5, 172 69
Total	- 20. 779	1. 121	2. 241	10.766	- 114	- 944	- 12. 546	- 9. 177	- 4. 039	- 3, 004	- 5. 103
Oak-pine											
Softwood	2, 454	2,075	366	4, 597	616	66	- 1, 776	- 1, 063	- 374	- 553	- 1, 702
Hardwood	1, 707	1, 126	416	1, 260	945	569	152	67	- 737	- 643	- 1, 266
Total =	4. 161	3, 201	762	5, 677	1. 763	657	- 1, 626	- 1. 016	- 1. 111	- 1. 396	- 2. 970
Upland hardwood Softwood	330	236	661	24	36	525	- 414	- 215	- 162	21	- 364
Hardwood _	6, 770	2,034	1,616	734	926	2, 559	2, 356	164	- 266	- 247	- 1, 266
Total =	9, 100	2. 272	2, 477	756	962	3.064	1. 944	- 51	- 470	- 226	- 1, 650
Lowland hardwood Softwood	- 453	939	- 127	241	192	937	154	- 361	- 1, 446	- 535	- 445
Hardwood	5, 446	4, 165	1, 256	1,906	3, 309	5, 176	66	- 1, 260	- 7, 179	- 3, 302	1, 263
Total	4, 993	5. 124	1, 131	2.147	3. 501	6. 115	222	- 1. 621	- 6, 627	- 3, 637	636
All types											
Softwood	26, 277	4, 365	23, 297	41, 692	3, 637	1, 345	- 16, 665	- 11, 614	- 6, 032	- 4, 065	- 7, 663
Hardwood	22, 656	7, 373	4, 119	5, 254	6, 495	9, 547	3, 934	- 51	- 6, 215	- 4, 396	- 1, 202
Total	51, 133	11,756	27, 416	46, 946	10, 332	10,692	- 12, 751	- 11, 665	- 14, 247	- 6, 463	- 6, 665

^a Classifications at the beginning of the remeasurement period.

Table 20-- Average annual removals of growing stock on timberland, by broad management class, species group, and stand-age class, Northern Coastal Plain of South Carolina, 1988-1991

Broadmanagement class and speci esgroup	No Stand-age class ^a (years) All manageable										
	classes	stand	0-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81+
					Thou	ısand cubic	feet				
Pine plantation											
Softwood	36, 563	573		10, 260	16, 166	6, 202	1, 360				
Hardwood	163			42	141						
Total	36, 766	573		10, 322	16, 309	6, 202	1. 360				
Natural pine											
Softwood	109, 442	2,463	2, 235	4, 324	6,579	24, 981	35, 295	16,760	9, 160	5,605	
Hardwood _	9, 216	97	52	264		1, 421	3, 607	2, 525	374	656	
Total =	116, 658	2. 560	2, 267	4. 606	6, 579	26, 402	36, 902	19. 305	9, 534	6. 461	
Oak-pine											
Softwood	17, 109	2, 106	467	1, 362	709	3,005	2,704	4,576	1, 165	973	
Hardwood _	7, 444	661	656	69	153	1, 190	1, 290	2,609	666	106	
Total	24, 553	2, 767	1, 145	1, 451	862	4. 195	3, 994	7. 167	1. 653	1, 079	
Upland hardwood											
Softwood	3, 246	312	171	153		959	1, 111		174	366	
Hardwood _	16, 141	1, 957	66	496	176	4, 026	3, 360	3, 035	626	2, 177	
Total _	19 387	2, 269	257	651	176	4. 985	4. 471	3.035	1.000	2.543	
Lowland hardwood											
Softwood	6,916	520	274	220	336	927	1, 176	585	1, 596	1, 143	2, 137
Hardwood _	54, 120	1, 475	223	365	483	5, 854	3, 156	9, 247	13, 163	9, 230	10, 924
Total =	63,036	1. 995	497	585	819	8. 781	4, 332	9.832	14. 761	10.373	13. 061
All types											
Softwood	175, 296	5, 994	3, 167	16, 359	27, 792	36,074	41, 646	21, 943	12,097	8,067	2, 137
Hardwood _	67, 104	4, 210	1, 019	1, 256	953	12, 491	11, 413	17, 416	15, 051	12, 369	10, 924
Total	262, 400	10, 204	4, 186	17, 617	28, 745	46, 565	53, 059	39, 359	27, 148	20, 456	13, 061

^a Classifications at the beginning of the remeasurement period.

Table 21 --Merchantable volume of **live** trees and growing stock on timberland, by forest-type and species groups, Northern Coastal Plain of South Carolina, 1992

	Live trees					Growing stock					
Forest-type group	All species	Pine	Other softwood	Soft hardwood	Hard hardwood	All species	Pi ns	Other softwood	Soft hardwood	Hard hardwood	
					Thousand	cubic feet					
White pine-hemlock											
Spruca-fir											
Longleaf-slash pins	294,655	281, 489		5, 684	7.482	287, 589	278.780		4, 751	4, 058	
Lobiolly-shortleaf pine	1,719,932	1,511,991	4,812	107, 422	95, 707	1,680,712	1,499,166	4,536	95, 568	81, 442	
Oak-pine	644,918	312, 443	10, 315	142,017	180, 143	602.413	311, 107	9.037	124. 506	157.763	
Oak-hickory	608, 098	59, 375	1, 870	264, 529	282, 324	533, 341	59, 375	1, 870	235,069	237, 027	
Oak-gum-cyprorr	2,838,535	109,513	250. 028	1,866,007	612,987	2,519,692	108, 698	241, 061	1,652,971	516, 962	
Elm-ash-cotbnwood	30, 473	505	1, 308	19, 005	8, 575	26,704	505	1, 398	17, 675	7, 126	
Maple – beech – birch											
All types	6,136,611	2,275,316	268. 423	2.405.654	1,187,218	5,650,451	2,257,631	257, 902	2,130,540	1,004,378	

Table 22-- Area of timberland treated or disturbed annually and retained in timberland, by treatment or disturbance and ownership class, Northern Coastal Plain of South Carolina, 1986 to 1992

			Ownership class					
Treatment or disturbance	All ownerships	Public	Forest industry	Forest i ndustry – leased	Other private			
			Acres*					
Final harvest	116,408	9,941	25,503	101	80,863			
Partial harvest*	11,455	345	2,766		8,344			
Commercial thinning	10,564	726	4,721	164	4,953			
Other stand improvement	6,783	3,652			3,131			
Site preparation	46,577	3,449	23,241	101	19,786			
Artificial regeneration'	59,498	2,509	22,789	101	34,099			
Natural regeneration ^c	117,272	11,916	13,071		92,285			
Other treatment	60,044	6,833	5,742		47,469			
Natural disturbance	449,058	57.145	97,502	1,070	293,341			

^a Since some acres experience more than one treatment or disturbance, there are no column totals.
*Includes high-grading and some selective cutting.

c Includes establishment of trees for timber production on forest and nonforest land.

Table 23--Area of timberland treated or disturbed annually and retained in timberland, by treatment or disturbance and broad management class, Northern Coastal Plain of South Carolina, 1988 to 1992

	Broad management class ^a								
Treatment or disturbance	All classes	Pine plantation	Natural pine	Oak – pine	Upland hardwood	Lowland hardwood			
			Acre	s ^b					
Final harvest	116,406	15,010	57,074	12,109	6,427	23,766			
Partial harvest ^c Commercial thinning	11,455 10,564	367 6,203	3,694 4,361	3,466	1,172 	2,754 			
Other stand improvement Siie preparation	6,763 46,577	426 9,013	5,553 16,972	426 5,941	 5,403	374 9,246			
Other treabnent Natural disturbance	60,044 449,056	4,319 59,762	25,366 121,165	11,069 55,337	9,406 53,731	9,660 159,023			

^a Classification before treatment or disturbance.

Table **24**—Area **of** timberland regenerated annually, by type of regeneration and broad management class, Northern Coastal Plain of South Carolina, 1988 to 1992

	Broad management class ^a									
Type of	All	Pine	Natural	Oak-	Upland	Lowland				
regeneration	classes	plantation	pine	pine	hardwood	hardwood				
			Acre	es						
Artificial regeneration following harvest	23,653	21,977		1,676						
Natural regeneration following harvest	61,299		15,671	15,603	12,351	17,674				
Other artificial regeneration on forest land	16,114	15,626		1,667	621					
Other natural regeneration on forest land	49,491		14,165	16,504	7,271	11,531				
Artificial regeneration on nonforest land	17,731	17,731								
Natural reversion of nonforest land	6,462		5,273	419		790				
Total	176,770	55,334	35,129	35,669	20,443	29,995				

^a Classification after regeneratio

 $^{^{}m{b}}$ Since some acres experience more than one treatment cr disturbance, there are no column totals.

c Includes high-grading and some selective cutting.

Table 25 - Area of timberland, by treatment opportunity and broad management classes, Northern Coastal Plain of South Carolina, 1992

		Broad management class							
Treatment opportunity class	All classes	Pine plantation	Natural pine	Oak- pine	Upland hardwood	Lowland hardwood			
			Acres	3					
Salvage	46,650	4,236	6,565	2,090	4,763	26,976			
Harvest	176,062		35,292	20,173	7,342	113,275			
Commercial thinning	120,216	63,220	29,353			7,645			
Other stand improvement	360,660	32,496	66,162	69,092	63,341	109,747			
Stand conversion	30,337	4,607		2,449	6,314	14,967			
Regeneration	796,569	21,675	106,926	157,419	197,045	313,504			
Stand in relatively									
good condition	2,921,902	723,329	766,647	460,663	324,467	626,556			
Adverse sites	243,631	·	4,665	·	·	236,946			
All classes	4,718,449	669,565	1,038,050	751,906	605,312	1,453,616			

^a Areas where management opportunities are severely limited because of steep slopes or poor drainage.

Table 26-- Area of timberland, by treatment opportunity and ownership classes, Northern Coastal Plain of South Carolina, 1992

		Ownership class						
Treatment opportunity class	All ownerships	Public	Forest industry	Forest industry – leased	Other private			
			Acres					
Salvage	46,650	7,005	10,663		26,762			
Harvest	176,062	29,153	33,255		113,674			
Commercial thinning	120,216	19,167	46,960		52,071			
Other stand improvement	360,660	29,926	30,660	5,142	314,912			
Stand conversion	30,337	2,267	2,049		26,961			
Regeneration Stand in relatively	796,569	96,672	141,160		556,717			
good condition	2,921,902	266,614	703,452	30,269	1,919,567			
Adverse sites*	243,631	26,770	71,041	1,034	142,966			
All classes	4,718,449	463,614	1,041,700	36,445	3,156,690			

⁸ Areas where management opportunities are severely limited because of steep slopes or poor drainage.

Table 27--Merchantable volume of live trees and growing stock on timberland. by ownership class and species **group,** Northern Coastal Plain of South Carolina. 1992

			Live trees				&	owing stocl	•	
	All		othsr	Soft	Hard	All		Other	soft	Hard
Ownership class	species	Pine	softwood	hardwood	hardwood	species	Pins	softwood	hardwood	hardwood
					Thousand	cubic feet				
National forest	250,418	91,791	35,740	99,475	32,409	239,079	91,040	35,114	85,519	25.405
Other public	338,825	221,579	21,337	47,420	48,390	315,855	220,890	21,337	39,290	34,349
Forest industry	1,536,694	535,540	78,825	501,798	219,431	1,426,111	531,334	75,253	531,930	185,584
Forest industry—leased	31,340	20,539	1,417	4,715	4,558	29,913	20,539	1,417	4,352	3,505
Other private	3,969,335	1,304,667	130.104	1,652,244	882,320	3,639,482	1,293,828	123,771	1,468,449	753,434
All ownerships	6,136,611	2,275,316	258,423	2,405,654	1,187,218	5,650,451	2,257,631	257,902	2,130,540	1,004,378

Table 28--Volume of sawtimber on timberland, by ownership class and species group, Northern Coastal Plain of South Carolina, 1992

		Sm	all sawtimb	er ^a		=	Lar	ge sawtimb	or ^b	
Ownership class	All species	Pins	Other softwood	sot? hardwood	Hard hardwood	All species	Pins	Other softwood	soil hardwood	Hard hardwood
					Thousand	board feet				
National forest	377,181	151.944	55,525	125,853	32,848	415,553	174,031	84,325	104,055	52,241
Other public	588,394	491,855	25,543	30,778	39,207	433,238	322,271	27,390	50,705	32,853
Forest industry	2,193,493	1,372,259	77,091	594,097	150,045	2,208,560	407,097	250,479	950,025	500,950
Forest industry—leased	50,297	44,257	3,014	3,015		19,588		2,877	4,339	12,472
Other private	4,926,965	2,488,778	158,428	1,521,031	758,728	7,269,768	2,887,120	348,145	2,609,355	1,425,147
All ownerships	8,136,330	4,559,114	321.502	2.274.785	980.829	10,346,817	3,881,419	723,225	3,718,490	2,023,682

a Volume of sawtimber trees less than 15.0 inches at d.b.h.

Table **29 – Average** net annual growth and removals of growing stock on timberland, by **ownership class** and species group, Northern Coastal Plain of South Carolina. **1986–1991**

		Not	annual gro	wth			Annu	al timber re r	novals	
Ownership class	All species	Pins	Othsr softwood	soil hardwood	Hard hardwood	All species	Pins	Other softwood	Soft hardwood	Hard hardwood
					Thousand	cubic feet				
National forest	-25,554	-22,555	-417	-352	-3,129	5,475	5,455		572	448
Other public	4,594	3,531	355	-532	1,330	14,834	8,553	485	3,500	2,085
Forest industry	44,552	39,918	754	5,941	-1,051	52,285	47,085	571	5,913	•
Forest industry-bard	1,812	2.158	33	508	-887	752	·		505	147
Other private	25,519	3,022	1,559	24,274	-2,345	178.052	109,523	3,412	35,898	29,219
All ownerships	51,133	25,973	2,304	29,839	-5,983	252,400	170,728	4.558	47.588	39.515

^{&#}x27;Volume of sawtimber trees 15.0 inches and larger at d.b.h.

Table **30**--Average net annual growth and removals of sawtimber on timberland, by ownership **class** and species group, Northern Coastal Plain of South Carolina, 1988-1991

		Not	annual gro	wth			Annu	al timber rem	novals	
Owmrship class	All species	Pine	other softwood	soft hardwood	Hard hardwood	All species	Pine	Other aoftwood	soft hardwood	Hard hardwood
					Thousand	board feet				
National forest	-139,204	-121,815	- 1,490	- 1,496	-14,493	26,874	25,590		655	629
Other public	15,244	14,124	500	- 1.570	2,190	58,441	35,750	2.501	11,647	8,453
Forest industry	154,914	139,160	3,641	23,623	-11,510	230,005	171,686	2,770	24,735	30,805
Forest industry-leased	531	5,110	184	202	-4,965	2,770			2,160	610
Other private	30,257	-26,801	7,395	73,816	-24.153	764,806	523,540	17,509	120,121	103.627
All ownerships	61,652	9,778	10.230	94,575	-52.931	1.082.896	756.575	22.870	159.318	144.124

Table 31 --Volume of timber on timberland, by class of timber and species group, Northern Coastal Plain of South Carolina, 1992

Class of timber	All species	Pine	Other softwood	soft hardwood	Hard hardwood
		Th	ousand cubic f	eet	
Sawtimber trees					
Saw-log portion Upper-stem portion^a	3,410,367 487, 319	1,528,039 140, 168	198, 265 21, 647	1,138,721 213, 236	545, 342 92, 286
Total	3,877,686	1,668,207	219, 912	1,351,959	637, 806
Poletim ber trees	1,772,765	589, 424	37, 990	778, 581	366, 770
All growing-stocktrees	5,650,451	2,257,631	257. 902	2,130,540	1,004,378
Rough trees					
Sawtimbersize Poletimbar size	159, 394 226, 904	6, 877 10, 369	3, 612 1, 167	97, 888 109, 503	51, 017 107, 865
Total	388. 298	17. 246	4,779	207,391	158,882
Rotten trees					
Sawtimber size Poletimber size	85,899 12, 163	 439	5, 527 215	59, 281 8, 462	20, 911 3, 047
Total	97. 862	439	5, 742	87.723	23, 958
Salvable dead trees					
Sawtimber size Poletimbar size	53, 893 10, 518	42, 114 7, 259	943 59	4, 283 1, 714	6, 553 1, 484
Total	84, 409	49, 373	1, 002	5, 997	8, 037
Total, all timber	6,201,020	2,324,689	269, 425	2,411,651	1,195,255

a Includes cullsections in the aw-logportion.

Table 32 – Number of live trees on timberland, by species and diameter class, Northern Coastal Plain of South Cardina. 1992

	All	1.0-	3.0-	5.0-	7.0-	9.0-	11.0	13.0-	15.0-	17.0-	19.0-	21.0-	29.0 and
pecies	ciasses	2.9	4.9	6.9	8.9	10.9	12.9	14.9	16.9	18.9	20.9	28.9	larger
						Thousand	trees						
oftwood													
Longleaf pine	37,530	12,208	6,260	6.1%	4,977	2,512	2.3%	1,595	891	314	182	7	
Slash pine	35.146	9,039	9,550	6.3%	5,611	2,494	1,295	442	234	65	18		
Shortleaf pine	7,600	2,820	1,624	1,741	539	354	278	to7	82	43		12	
Lobiolly pine	731,309	393,297	153,690	85,520	43,873	23,644	13,590	8,286	4.650	2,555	1,184	973	47
Pond Pine	36,090	14,445	7,949	4,749	3,985	1.956	1,589	662	376	272	86	21	
Virginia pine													
Pitch pine													
Table Mountain pine													
Sprucopine	1,184	1.0%			51			14	11	20			
Sand pine													
Eastern white pine													
Eastern hemlock													
Spruceand fir													
Baidcypress	19,429	5,861	3.063	3,084	1.9%	1,440	1,125	847	560	594			48
Pondcypress	10,894	3.801	2,279	1,607	987	-	558	221	200	90	312 48	507 48	40
Cedars	9.178	5,066	2,27 9 2,481	•	967 567	1,054 101	556		200	90 23	48 9	48 12	
Ceuars	9.176	3,000	2,401	919	367					23	9	12	
Totalsotwoods	888.360	447.625	186.896	110.203	62.578	33.555	20.834	12.174	7.004	3.976	1,839	1.5%	96
lardwood													
Select white oaks	32.140	16,251	5,879	2,940	2,718	1,551	1.051	814	371	282	114	166	3
Select red oaks	7.1%	3,744	1,001	1.048	291	266	251	200	142	58	66	79	23
Chestnut oak													
Other white oaks	42,576	27.028	6.2%	3,627	2,352	1.020	823	634	274	154	80	229	57
Other red oaks	365,065	249,899	56,406	26,278	13,493	8,291	4,576	2,370	1,334	855	654	746	163
Hickory	48,090	31,006	7,506	3,502	2.8%	1,295	763	581	263	102	94	125	14
Yellow birch													
Hard maple	1,768	1,434	147	151		36							
Sot maple	364,784	260,892	57,876	21,823	11,622	4,890	3,500	2,008	886	679	329	233	46
Beech	2,675	2,226	149	108	46	65		37	12	12		17	3
Sweetgum	450.144	315.204	69,058	28,139	16,261	9.303	4,953	3,376	1,876	922	461	531	60
Tupelo and blackgum	299,692	165.441	56,855	24,788	17.156	12,290	7,721	7,389	3,691	2.055	1,240	983	83
Ash	120,262	85,878	23,658	4,460	2,442	1,606	879	675	377	180	68	119	20
Cdtonwood	4,195	2,121	769	317	416	139	186	117	56	43	е	9	13
Basswood	62				62								
Yellow-poplar	25,795	14,%5	2.970	2,655	1.6%	1,387	754	733	620	334	301	299	17
Bay and magnolia	87,986	71,181	11.233	3,877	1.1%	363	129	18	55	32			
Black cherry	29,604	23,750	3,623	1.631	355	101	66	54	13	11			
Black walnut	297		143		47	34	26	15		20		12	
Sycamore	2.249	1,490	303	161	47	28	99		26	22	17	45	3
Slack locust	298	155	143										
Elm	37,981	24,982	6,570	3,2%	1,442	585	476	338	160	49	50	27	6
Other eastern hardwoods	449,172	352,763	66.400	18,983	7,599	1,807	882	425	136	74	35	66	2
			376.887							5.884	3.518	3.6%	513
Total hardwoods	2,372,004	<u>1,649,488</u>	310.001	147.784	81,986	45.047	27.135	19.784	10,292	5.004	3.310	3.0%	313

Table 33 – Number of growing-stock trees on timberland, by species and diameter class, Northern Coastal Plain of South Carolina. 1992

					Diamete	r class (inch	es at breast	height)					
	All	1.0-	3.0-	5.0-	7.0-	9.0-	11.0-	13.0-	15.0-	17.0-	19.0-	21.0-	29.0 and
Species	classes	2.9	4.9	5.9	8.9	10.0	12.9	14.9	16.0	16.0	20.0	26.9	larger
						Thousand	trees						
otwood													
Longleaf pine	36,029	10.001	6,117	6,185	4,926	2,512	2,399	1,595	891	314	182	7	
•	34,179	1 0,901 6,582	9,650	6,085	5,546	2,416	1,241	442	234	65	18	- '-	
Slash pine	7,067	2,526	1,475	1,741	5,546 495	354	252	107	62	43	10	12	
Shortleaf pine	· ·	•	•								4 404		
Lobiolly pine	691,671	363,034	146,509 7,067	63,840	42,802	23,282	13,555	8,267 662	4,623 375	2,565 272	1,184 86	a73	47
Pond pine	32,913 	12,710 	7,067	4,312 	3,877	1.921	1,589 				00	21 	
Virginia pin ●													
Pitch pine													
Table Mountain pine													
Spruce pine	1,184	1,088			5 1			14	11	20			
Sand pine													
Eastern white pine													
Eastern hemlock													
Spruce and fir													
Baldcypress	16,625	3.602	2,912	2,961	1,841	1,334	1,054	794	560	540	303	494	30
Pondcypross	10,015	3,232	2,139	1.607	884	1,054	536	221	187	72	41	42	
Cedars	7,149	3,481	2,174	709	557	101				12	9	6	
Total softwoods	836.852	410.256	178.053	107.530	60.989	32.974	20.636	12.102	6.964	3.893	1.823	1.555	77
lardwood													
Soled white oaks	21,218	7.247	4,563	2,648	2,554	1,453	1,008	762	358	261	114	14Q	3
Select rod oaks	4,757	1,875	710	928	291	231	204	182	142	58	4 1	72	23
Chestnut oak													
Other white oaks	22,224	10,389	4,668	2,742	1,857	773	666	406	194	83	64	146	36
Other red oaks	248,564	153,584	43,580	22482	11,897	7,520	4,054	2,117	1,204	772	576	637	132
Hickory	30,251	15,473	6,011	3,285	2,467	1,213	712	549	249	91	85	106	10
Yellow birch													
Hard maple	429	429											
Sot maple	167,785	100,602	33,543	15,748	8,428	3,922	2,538	1,480	675	468	251	116	14
Beech	1,250	1,034		108		34		37	12	1 2		13	-
Sweetgum	304,716	201,204	46,181	23,503	14,212	8.380	4,556	3,081	1,716	892	426	521	50
Tupelo and blackgum	172,288	68,896	38,150	20,060	15,155	10,526	6,618	6.187	3,219	1,738	1,040	650	30
Ash	38,001	21,071	9,364	2,845	1,580	1,313	607	591	338	138	60	95	20
Cottonwood	3,000	1,083	769	180	416	139	186	117	56	32	9	9	13
Basswood	62				62								
Yellow-poplar	19.300	0,841	1,612	1,026	1,548	1,327	703	717	56@	314	286	268	9
Bay and magnolia	24,494	16,722	4,095	2.518	682	282	100	18	55	22			
Black cherry	14,332	11.688	1,611	652	262	101		18					
Black walnut	142				47	34	26	15		20			
Sycamore	1,480	743	303	161	47	28	99		26	11	17	45	
Sycamore Black locust	1,400									- '-			
Elm	17,145	7,90@	4,071	2,723	1,223	407	374	195	147	28	50	12	6
Other eastern hardwoods	13,883	7,091	2,624	1,713	1.113	504	275	315	120	52	35	41	
Total hardwoods	1,105,420	636.881	202.264	104,222	63,960	38,187	22,778	16.787	9,080	4,992	3.043	2.880	346
11	4 0 40 000	1 047 107	200 247	044 ===	404.040	74 101	40.444	00.000	40.044	0.005	4.000	4 405	10-
All species	1,942,272	1,047,137	380,317	211,752	124,049	71,161	43,414	28,889	16.044	8,885	4,868	4,435	423

Table 34 - - Merchantable volume of live trees on timberland, by species and diameter class, Northern Coastal Plain of South Carolina, 1992

					Diame	ter class (in ch	es at breast he	eight)			
	All	5.0-	7.0-	9.0-	11.0-	13.0-	15.0-	17.0-	19.0-	21 .0-	29.0 and
Species	classes	6.9	8.9	10.9	12.9	14.0	16.9	18.9	20.9	28.9	larger
					Thousand	cubic feet					
Soltwood											
Longleaf pine	231,271	16,692	32,775	31,%0	48,357	43,833	32,283	14,205	10.549	617	-
Slash pine	126,728	17,376	33,979	27.153	23,775	11,868	8,557	3,173	847		-
Shortleaf pine	28,510	4,260	3,329	5,258	5.415	3,115	3.159	2,753		1,221	-
Lobiolly pine	1,754,071	201,761	255,981	272,177	260,017	235,894	190,692	142,673	84,524	102.024	8,328
Pond pine	132,080	10,816	22,903	20,199	27,334	17,457	12,743	12,672	6,514	2,442	· -
Virginia pine		·				,	´			´	-
Pitch pine											-
Table Mountain pine											
Spruce pins	2.6%		360			524	687	1.1%			
Sand pine									~ ~		_
Eastern white pins											_
Eastern hemlock											
Spruce and fir											-
Baldcypress	204,451	9.344	13,816	17,369	19,869	22,356	20,638	28,803	18.806	46,052	7.39
Pondcypress	55,014	5,404	5,499	12,823	9,328	5,244	6,517	3,901	2,582	3,621	10
Cedars	8,958	2.224	3,094	1,064				859	586	1,131	
	-		·	•							
Total softwoods	29543.739	267.877	371.727	388.003	394.095	340.291	275.176	210.224	123.408	157.108	15.83
Hardwood											
Select white oaks	135,365	8,484	16,529	17,868	18,844	21,721	13,155	15,102	6,897	16,085	68
Select red oaks	41,583	3,161	1,524	3,108	3,997	5,087	5,918	2,061	4,190	7,236	4,40
Chestnut oak								-,			-
Other white oaks	100,888	8,862	13,427	9,499	13,484	12,500	7,7%	5,103	4.4%	16.820	8,05
Other red oaks	593.263	72,587	77322	87,347	74,252	59,335	48,933	40,467	39,388	67.419	28,23
Hickory	96,036	7.889	15,656	12,192	13.145	14,492	8,921	5,121	6,246	9,993	2,38
Yellow birch											-,
Hard maple	726	386		340							_
Sot maple	392,103	64,593	70,310	53,333	58,652	48,788	28,%1	27,523	17,904	16,442	5.99
Beech	4,279	210	3 1	555		931	461	543		1,310	23
Sweetgum	700,737	74,129	101,225	109,915	92,620	96,218	74,347	48,284	31.449	59,586	12,96
Tupelo and blackgum	997,499	74,702	107,128	136,931	135,610	185,548	128,092	86,965	67,296	66.892	8,33
Ash	117,287	10,411	14,809	18,612	15.803	18,885	13,980	8,262	4,289	10.034	2,40
Cdtonwood	21,997	663	2,263	1,613	4.047	3,578	1,943	1,920	528	1,327	4,11
Basswood	285		2,203					1,320		1,327	-,
Yellow-poplar	160.978	7,632	10,354	16,%9	13,958	21,368	24,452	16,822	19,370	27,%9	2,46
Bay and magnolia	25,194	10,015	5,882	3,877	2,182	399	1.617	1.222		21,703	-,-0
Black cherry	9,404	3,887	2,064	901	736	086	532	298			-
Black walnut	3,576		311	460	453			897		1,004	-
Sycamore	10,352	666		419		451 		954		3,543	32
Black locust	10,352		529 		1,685 		1,077 	954	1,170 	3,543	-
Elm											
Other • astom hardwoods	53,734 127,586	7.5% 38,269	8,815 35,211	6.0% 16,852	8,248 13.017	7,351 9,334	5.6% 4,574	2,534 2,818	3,604 2,158	2,647 5,037	1,35 31
Total hardwoods	3.592.872	394.084	483,675	496.469	470.713	506.772	367,987	267.796	208.972	313.244	83.160
III species	6,136,611	661.961	855.402	884.472	864.808	847.063	643.163	478.020	332.380	470.352	98.990
							_	_			

Table 35 -- Volume of growing stock on timberland. by species and diameter class, Northern Coastal Plain of South Carolina. 1992

					Diame	ter class (in ch	s at breast he	ight)			
	All	5.0-	7.0-	9.0-	11.0-	13.0-	15.0-	17.0-	19.0-	21 .0-	29.0 and
pecies	classes	6.9	8.Q	10.9	12.9	14.9	16.9	18.9	20.9	28.9	larger
					Thous	and cubic fe	et				
oftwood											
Longleaf pine	231,045	18,892	32,549	31,980	48,357	43,833	32,283	14,205	10,549	817	-
Slash pine	124,859	16.830	33,853	28,591	22,940	11,888	8,557	3,173	847		-
Shortleaf pine	28,098	4.250	3,122	5,258	5,208	3,115	3,159	2,783		1,221	-
Loblolly pine	1,740,637	199,073	250,243	288,932	259,576	235,308	189,958	142,873	84,824	102,024	8,32
Pond pine	130.538	10,041	22,401	19,934	27,334	17,457	12,743	12,872	5,514	2,442	-
Virginia pine						´				´	-
Pitch pine											-
Table Mountain pine											-
Spruce pine	2,558		350			524	587	1,185			-
Sand pine											-
Eastern white pine											-
Eastern hemlock											-
Spruce and fir											-
Baldcypress	195,849	9.120	13,048	18,888	19,358	21,382	20,838	27.472	18,381	45,533	5,28
Pondcypress	53,099	5,404	5,275	12,823	9,135	5,244	8,232	3,378	2,247	3,381	-
Cedars	7,954	2,051	3,094	1,084				583	588	575	-
		•	•								
Total softwoods	29515.533	283.471	363,943	383.230	391.918	338.709	274.157	208.094	122.828	155.774	13.80
lardwood	400.054	7 707	45.000	40.004	40.070	00 500	40.007	44.005	4 007	45 440	00
Select white oaks	129,351	7,737	15,388	18.801	18,278	20,582	12.837	14,085	6,897	15,118	88
Soled red oaks	38,280	2,888	1,524 	2,932	3,428	4.751	5,918 	2,981	2,551 	8,818 	4,40
Chestnut oak											
Other white oaks	79.540	5,959 53,700	11,499	7,582	11,885	98285	5,089	3,225	3,995	12,339	8,91
Other red oaks	545,918	53.708	70888	82,292	89.597	53,981	44,302 a.489	37.900 4,898	38,740	51,839	24,71 ² 2.11
Hickory Valley, bissh	90,008	7,525 	14,173 	11.580	12,434	13,843	a.469 	4,090	5,788 	9,189 	2.11
Yellow birch											_
Hard maple											
Soft maple	309,477	50.702	55,225 	44,495	45,883 	39.815	23,808	21,478	15,870 	9,712	2,10
Beech	3,580	210		349		931	481	543		1,088	
Sweetgum	855,725	54,894	91,900	101.280	87991 5	90,077	71,229	47,558	30.41 3	58,945	11,712
Tupelo and blackgum	884,758	62,796	97.350	122,779	122,159	164,959	118,952	78,888	51,735	52,558	4,78
Ash	101,890	7,782	10,983	15,325	13,810	17,358	13,134	7,085	3,957	9,294	2,402
Cottonwood	21,507	448	2,283	1,813 	4,047	3,578 	1,943 	1,845 	528 	1,327 	4,119
Basswood	285		285								
Yellow-poplar	151,157	5,888	9.837	15,201	13,517	20,970	22,880	18,009	i a.032	28,202	1,52
Bay and magnolia	19,015	7,283	3,725	3,400	1,801	399	1,817	all			-
Black cherry	4.829	1,937	1,534	901		457					_
Black walnut	2,572		311	480	453	451		897			_
Sycamore Black locust	9,609 	855 	529 	419	1,585 		1,077 	540 	1,170 	3,543 	-
Elm	44,548	8,389	7.838	4,582	7,188	5.093	5,553	1,595	3,504	1,571	1,35
Other eastern hardwoods	42,880	4,528	7,188	8,105	5,187	7,488	4,315	2,382	2,158	3,573	-
Total hardwoods	3,134,918	302,098	403.177	440.078	419.559	453,755	340.404	242,281	193,528	273,113	88.91
species	5,650,451	555,559	787.120	823.308	811.487	702 455	514,581	450.275	240 450		
·	-,,	000,000		023.300	011.407	792,455	317,301	450.375	318,158	428.887	80.52

Table 36-- Volume of sawtimber on timberland, by species and diameter class, Northern Coastal Plain of South Carolina. 1992

	_			Diamete	r class (in ches a	it breast height)		
Species	Ali classes	9.0 – 10.9	11.0- 12.0	13.0- 14.9	15.0- 16.9	17.0- 18.9	1 9.0 — 20.0	21 . 0- 28.9	29.0 and
 			-	Thousa					1411 201
				mouse	ma boara 184				
ofwood									_
Longleaf pine	942,881	131,679	233,244	234,804	185,785	88,547	66,822	4,020	_
Stash pine	338,207	08,799	104,417	61.889	48,586	10,249	5,357 		_
Shortleaf Pine	102,401	20.431	23,981	15,856	17,581	16,450		8,093	
Lobiolly pin.	6,558,516	064,802	1,166,215	1,210,314	1,072,838	859,948	535,338	688,677	60,29 -
Pond pine	485,425	73,894	125,775	90,114	70,807	74,295	34.128	16.412	-
Virginia pin⊕									-
Pitch pine									-
Table Mcuntain pine									-
Spruce pine	13,013			2,810	3,338	6,865			-
Sand pine									-
Eastern white pine									-
Eastern hemlock									-
Spruce and fir									-
Baldcypress	850,405	50,359	74,064	92,839	98,698	140,781	99,020	261,473	33,17
Pondcypross	179,253	40,832	35,778	23,362	30,123	17,502	12,201	19.456	-
Cedars	15,170	4,368				3,418	3,634	3.750	-
Total softwoods	@.485.361	1.385.254	1.763.474	1.731 .988	1.527.736	1.225.064	756.500	1,001,880	93.46
·									
ardwood									
Select white oaks	401,804		62,502	83.307	57,978	69,126	35,818	88,628	4,53
Select rod oaks	158,514		10,822	18,924	27,909	14,072	14,764	41,209	20,91
Chestnut oak									-
Other white oaks	251,020		41,689	38.01 0	27,872	15,226	20.179	66,539	41,51
Other rod oaks	1,605,894		259,410	232,881	211,058	193,171	196,122	357,586	155,660
Hickory	254,962		42,604	55.937	38,455	24.053	29.683	51,227	13,00
Yellow birch									-
Hard maple									-
Sot maple	839,043		152,432	151,252	100,129	97,763	76332	40,400	11,74
Beech	11.917			3,608	1.807	2.144		4,458	-
Sweetgum	1,896,603		31 3,323	386,993	342,541	247,817	169,695	357,831	7840
Tupelo and blackgum	2,511,007		370,435	630,764	504,220	368,892	310,402	287,864	29,43
Ash	285,232		44,651	67,459	56,777	33,257	19,775	49,283	14,03
Cdtonwood	85,074		14,402	15,157	8,854	8,279	2,760	7,990	27,63
Basswood									-
Yellow-poplar	61 4,545		47560	91,905	112,842	85,205	102,809	162,906	11,30
Bay and magnolia	18,086		6,837	1,503	7,044	3,702			-
Black cherry	1,804			1,804					-
Black walnut	6,757		1,485	1,680		3,592			-
Sycamore	37,121		5,182		4,683	2,503	5,891	18,862	-
Black locust									-
Elm	108,330		24,71 8	19,679	23.709	7,361	17,282	8,134	7,44
Other eastern hardwoods	1 09,974		18,333	30,457	18,385	11,588	10,581	19,630	-
Total hardwoods	8,997,786		1 424 394	1 831 220	1,545,263	1,188,641_	1,012,093_	I-571.547	424.62
:					.,,	, , 50, 6 7,	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
species	18,483,147	1,385,254	3,187,868	3,563,208	3,072,999	2,413,705	1,768,593	2,573,427	518,09

Table 37 -- Volume of sawtimber on timberland, by species, size class. and tree grade, Northern Coastal Plain of South Carolina, 1992

			All size	classes			Tree	s 15.0 inches	d.b.h. and large	r
- -	All		Tree	grade		All		Tree	grade	
Species	grades	1	2	3	4	grades	1	2	3	4
					Thousand	board feet				
Softwood										
Yellow pines	8,440,533	2,218,274	2,351,253	3,871,006		3,881,419	1,548,546	1,168,509	1,164,364	
Eastern white pine ^b										
Spruce and fir"										
Cypress=	1,029,658	389,557	337,879	309,140	13,282	712,424	389,557	282,447	72,294	8,128
Other eastern softwoods ^b	15,170		1,398	8,390	7,384	10,802			3,418	7,384
Total =	9,485,361	2,587,831	<u>2,690,328</u>	4,186,53 <u>6</u>	20.888	4,604,645	1.918.103	1,430,956	1,240,076	15,510
Hardwood'										
Select white and red oaks	580,408	122,433	215,988	212,255	9,734	384,853	122,433	188,000	73,904	2,518
Other white and red oaks	1,856,923	218,721	507,859	918,448	214,097	1,284,933	218,721	484,297	504.032	99,883
Hickory	254,982	21,348	93,094	122,282	18,258	158,421	21,348	75,195	58,494	3,384
Yellow birch										
Hard maple										
Sweetgum	1,896,603	379,158	851,394	818,429	49,824	1,196,287	379,158	518,024	288,902	14,205
Ash, walnut, end black cherry	293,793	31,797	128,707	114,758	18,533	178,714	31,797	94,321	45,188	5,410
Yellow- poplar	814,545	139,882	270,484	198,153	8,048	475,071	139,882	222,425	109,333	3.431
Other eastern hardwoods	3,520,552	480.238	1,201,024	1,660,742	178,548	2,067,893	480,238	880.719	823,803	83,133
Total _	8.997.786	1.391.575	3,068,328	4,041,043	498.840	5,742,172	1.391.575	2.438.981	1,699,654	211.982
All species	18483,147	3,979,406	5,758,656	8,227,579	517,508	10348,817	3,309,678	3.889.937	2,939,730	227,472

For yellow pines, tree grade is based on "Southern Pine Tree Grades for Yard and Structural Lumbar.' Research Paper SE-40, published by the Southustm Forest Experiment Station, Asheville, NC, 1968. Tree grade 4 does not apply to yellow pine.

b For other softwoods (excluding cypress), tree grade is based on Tree Grades for Eastm White Pine,' Research Paper NE-21 4, published by the Northeastern Forest Experiment Station, Radnor, PA, 1971.

For hardwoods and cypress, tree grades 1, 2, and 3 are based on 'Hardwood Tree Grades for Factory Lumber, "Research Papr NE-333, published by the Northeastern Forest Experiment Station, Radnor, PA, 1976. Grade 4 trees are sawtimber traes not qualifying as tree grades 1.2, or 3. The butt log of those trees qualify as construction (tie and timber) logs based on 'A Guide to Hardwood Log Grading (revised)," General Technical Report NE-1, published by the Northeastern Forest Experiment Station, Radnor, PA, 1971.

Table **38** -- Cubic volume in the merchantable **saw-log** portion of sawtimber trees on timberland. by species and diameter class, Northern Coastal Plain of South Carolina, 1992

				Diame	ter class (inche	s at breast he	ight)		
	Ail	9.0-	11.0-	1 x 0 -	15.0-	17.0-	19x)-	21 .0 —	29.0 and
Species	classes	10.9	12.9	14.9	10.0	10.e	20.9	28.0	larger
				Thou	sand cubic 🏍	et			
Softwood									
Longleaf pine	158,927	28.702	44,280	41,700	31,293	13,930	10,411	811	-
Slash pin	55,478	21,239	20,701	11,288	8,310	3,125	537		-
Shortleaf pine	19,092	4,373	4,751	2,958	3,074	2.717		1,209	-
Lobiolity pine	1,181,801	209,122	232,795	222,388	184,244	140.322	83,577	101.008	8,244
Pond pine	90,502	15,998	25,042	18,583	12,415	12,485	5,481	2,418	-
Vii ginia pin			25,042					2,410	_
Pitch pin									-
Tabk Mountain pin									-
Spruce pine	2,239			503	573	1,153			-
Sand pine									-
Eastorn white pine									-
Eastern hemlock									-
Spruce and fir									-
Baldcypress	150,399	11,938	18,388	19,117	19,045	25,783	17,411	43,508	5,11
Pondcypnss	37,301	9,984	8,018	4,819	5,853	3,218	2,158	3,253	-
Cedars	2,555	872				551	589	553	
Total softwoods	1,726,304	300.228	351.984	319.434	254.807	203.302	120.524	152.870	13.35
Hardwood									
Select white oaks	75,470		12,857	18,789	11,223	12,882	8,441	14,824	574
Select rod oaks	27,1 29		2,187	3.720	5.187	2,874	2,493	8,547	4,34
Chestnut oak	21,1 23		2,107	5.720	3.107	2,074	2,433		
Other white oaks	45,180		8,487	7,828	5,330	2,802	3,557	11,545	5,51
Other red oaks	282,220		50.150	44,399	38,505	34,084	33,848	57,858	23,47
Hickory	48,097		8,918	11,358	7,425	4,431	5,303	8,537	2.02
Yellow birch	40,097				7,425		J.303 		2,02
Hard maple									_
Soft map*	127 400		24 057	24 450	20.075	10 022	14 204	9 005	1.07
Beech	127,408 2,593		31,857 	31,459 742	20,075 397	18,922 472	14,294 	8,905 982	1,07
Sweetgum	340,924		51,504	74,577	83,249	43,898	28.824	57,280	11,59
Tupelo and blackgum			•		101,575	70,701	58,557	49,237	4,57
Ash	503,825 58,390		85,285 0,558	134,791 14,177	11,443	5,421	3,572	8,787	2,32
Cottonwood	14,857		2,897	2,969	1,887	1,498	489	1,279	4,03
	14,057		2,097		1,007	1,430		1,279	4,03
Basswood Yellow – popla ?			9,209			14,745	17,058	25,441	1,80
Bay and magnolia	105,745 3,707		1,204	17,358 324	20,328 1,434	745		23,441	1,00
Black cherry	358		1,204	358	1,434	743			-
•	1,483		302	373		788			_
Black walnut	•			3/3 	042		1,055	3,285	-
Sycamore Black iocust	5,813 		1,078 		913 	474	1,033	3,263	-
Elm Other ● astom hardwoods	21.148 19,855		5,075 3,51 5	4,039 5.819	4.71 1 3,500	1,405 1,975	3,225 1,883	1,437 3,083	1,25 -
Total hardwoods	1,684,063		295.190	370.700	297.083	218.985	178.719	258.907	54.408
							<u> </u>		
● ● □□□●□◎	3,410,367	300.228	547,174	599,134	551,870	422,288	299,243	411,577	77,853

	Diameter class (inches at breast height)												
	All	1.0-	3.0-	5.0-	7.0-	9.0-	11.0-	13.0-	15.0-	17.0-	19.0-	21 .0-	29.0 and
Species	classes	2.9	4.9	6.9	8.9	10.9	12.9	14.9	16.9	18.9	20.9	28.9	larger
						Thousand	cubic feet						
Softwood													
Longleaf pine	280.148	2,730	8,839	23,068	39,601	36,926	54,990	49,419	36,226	15,884	11,779	687	
Slash pine	164.773	2,606	11,390	23,966	40,961	31,397	27,018	13,356	9,582	3,542	955		_
Shortleaf pine	36,062	2,000 883	1,344	6,013	4,010	6,077	6.177	3,531	9,562 3,561	3,092	955	1.3%	
Lobiolly pine	2,301,250	82,537	142.344	287,677	312,666	317,457	297.593	267,452	214,978	160,362	94,765		9,28
Pond pine	165.219	2,623	7.3%	14.717	27,674	23,571	31,443	19,933	14,503	14,382	6,243	114,130 2,762	9,20
Virginia pine	103.219	2,023	7.5%	14.717	21,014	23,371	31,443	19,933	14,303	14,362	0,243	2,702	_
Pitch pine													_
Table Mountain pine													_
•	3,172	148			435			593	661	1,335			_
Spruce pine Sand pine	3,172	140			433					1,335			_
•													_
Eastern white pine Eastern hemlock													_
													_
Spruce and fir	258,340	1,351	4,891	13,781	17.072	21,686	24,366	27,250	25,040			FF 400	9,559
Baidcypress	•	-	· ·	•				-	*	34,797	22,557	55.190	
Pondcypress	79,145	1,775	3,320	9,101	7,972	16,808	12,069	6,674	0,249	5.047	3,320	4.581	22
Cedars	16,136	1,275	3,242	3,279	3,965	1,310				1,021	707	1,337	
Total softwoods	3.304.245	95.928	182.738	381.602	455.164	455.231	453.656	388.200	312.000	239.462	140.326	180.053	19.07
Hardwood													
Select white oaks	182,936	3,719	7,301	12,411	21,654	22,656	23,658	27,050	16,441	18,687	8,529	19,987	843
Select rod oaks	54,115	776	1,023	4,493	1,972	3,943	5,014	6,337	7,288	3,547	5,223	8.994	5,49
Chestnut oak													-
Other white oaks	143,143	5,257	7.6%	13,757	17,897	12,216	16,972	15,792	9.761	6.381	5,524	20,763	11,217
Other red oaks	900,427	50,219	71,095	114,530	104,743	112,913	94327	74,415	58,730	50,353	49.105	84,410	35,587
Hickory	136,844	6,182	8,245	12,448	20,833	15,315	16,185	17,689	10,919	6,184	7,569	12.357	2,940
Yellow birch													-
Hard maple	1,443	345	149	527		422							-
Sot maple	643,988	61,823	87,267	92,175	89,232	65,584	71,308	59,260	34,613	33,475	21,766	19,%7	7.5%
Beech	6,311	548	173	336	124	711		1,154	568	875		1.679	343
Swestgum	986,115	60,366	82,583	109,802	126,005	130.274	107.953	110,830	85,133	55,%7	35,848	67,567	14,747
Tupelo and blackgum	1,397,935	47,428	77,357	111,528	139.842	173,249	169,501	230,619	158,571	108,694	84.006	85,632	11,568
Ash	190,374	22,001	27,614	15,149	18,261	22.199	18,523	21,691	16,161	9,530	4,900	11,555	2,79
Cottonwood	27,536	412	1,094	969	2,838	1,922	4,741	4,160	2,259	2,261	4,500 618	1,535	4,737
Basswood	343				343	1,322			2,233	2,201			
Yellow-poplar	192,335	3,0%	4,036	10,511	12,488	19,158	16,000	24,176	27,621	18.91 6	21 055	24 500	2 07
Bay and magnolia	86,779	3,0 % 17,185	4,036 15,367	15,449	7,575	4,744	2,617	24,176 473	1,917	1,452	21,955	31,509 	2,87
=	23,878	-	4,405	•		4,744 1,095	891		624	349			_
Black cherry	•	7,453 	· ·	5,344 	2,535	-		1,182	624				-
Black walnut	4,557 42,036		243 435		384 635	558 493	544 1 050	535		1,069		1.224	
Sycamore	12,936	319	435	847 	635 	493	1,959 		1,253 	1,116 	1,353 	4.1%	420
Black locust	158	82 5 000	76										
Elm Other eastern hardwoods	81.396 312 302	5,088 73 501	9,941 68 879	10,778 56,965	11,033 45,860	7,357 21 149	9,859 18 235	8,900 11 372	6.7% 5.541	2,979 3 502	4,208 2,83 <i>4</i>	2,977 6,166	1,58
	312,302	73,591	68,879			21,149	18,235	11,372	5,541	3,502	2,834		40
Total hardwoods	5.365.851	365,842	474.889	588.017	624,254	615,958	578,287	615.635	444.109	324.277	253.238	380,348	102.99
All species	8,670,096	481,770	657,627			,418 1,071,1			756,909	563,739			122,07

Table 40 - - Green weight of forest biomass on timberland, by species and diameter class. Northern Coastal Plain of South Carolina. 1992

		Diameter class (inches at breast height)											
Species	All classes	1.0 —	3.0- 4.9	5.0- 6.9	7.0- 8.0	9.0- 10.0	11.0- 12.9	13.0- 14.9	15.0- 16.9	17.0 18.9	19.0- 20.9	21.0- 28.9	20.0 and
	0.00000					Hundred :	housand pou	unds					
Softwood							•						
Longleaf pine	210.546	2.217	7,439	16,584	30,107	28,739	43,262	30,383	29,010	12,800	9,478	547	
Slash pine	129,009	2,027	10,571	17,599	30,765	24,614	21.036	10,433	7.450	2,753	751		
Shortleaf pine	24,723	523	831	3,517	2.777	4,282	4,472	2,539	2,590	2,733		990	
Lobiolly pine	1,644,902	39,953	84,141	207,340	232,900	234,564	218,993	108.839	156,332	116,229	68,757	82.186	6,650
Pond pine	116,602	1,413	4,157	10,381	19,732	18,929	216,993	14,290	10,476	10,102	4,424	1,938	
Virginia pine			4,157	10,361	19,732	10,727	22,070	14,290	10,476	10,102	4,424	1,500	
Pitch pine													
Table Mountain pine													
Spruce pine	2 102	81			270			417	445	941			
	2,183							417	465 				
Sand pine													
Eastom white pine													
Eastom hemlock													
Spruce and fir													
Baldcypress	193,950	670	3,069	7,080	11,197	14.810	17,935	20,588	19,427	27,486	18,226	45.21 2	8,250
Pondcypross	50,410	1,068	2,082	3,040	4,278	10,370	8,026	4,665 	5,973	3,744	2.505	3,563	196
Cedars	11,238	792	2,064	2,437	2,893	925				741	474	912	
Total softwoods	2.392.563	48.744	114.354	268.867	335.037	335.233	336.394	289.154	231.733	177,088	104.615	135.348	15.996
Hudwocd													
Soled white oaks	150,558	2,981	5,535	8,850	17,103	18,393	19,583	22,733	13,922	15,682	7,382	17,543	751
Select rod oaks	46,244	637	807	3,017	1,568	3,199	4,228	5.419	6,312	3,194	4,679	8,143	5.043
Chestnut oak				5,017		5,177		5.417		5,174			
Other white oaks	11 9,904	3,715	5,362	9,386	14,175	10,064	14,200	13,902	8,524	5,860	4,945	19,340	10,451
Other rod oaks	724,171	42,888	54,183	82,642	84,582	91 ,885	78.138	61,819	48,545	42,292	40,197	69,143	27,857
Hickory	112,771	5,337	7,255	8,835	16,177	12,655	13,211	14,769	9,285	5,292	6,430	10,864	2.660
Yellow birch		5,557				12,033		14,707	7,205	5,272		10,004	2.000
Hard maple	1,278.	286	129	488		375							
Soft maple	468,380	46,874	62,073	63,928	67,457	48,808	52,478	43,161	25,228	24,182	15,251	14,005	5,147
Beech	5,282	465	148	205	100	620	52,476	952	483	545		1,430	334
Sweetgum	708,022	39,595	54,816	69,897	89,701	04,607			64,073	41,858	27,479	52,124	11,616
Tupelo and blackgum	953.092	31,958					79,442	82,814	114,567				9,971
Ash	118,700	13,412	52,740	55,045	85,256	112,241	114,328	162,521		81,641	64,179	68,636	1,418
Cottonwood	19,567	280	17,577 758	11.435 578	13,023 1,854	14,173	11,394	12.803 2,052	9,306	5,426	2,716 451	6,018 1,153	3,712
	235	200	736			1,298	3,250	2,052	1,639	1,662 	401	1,100	3,/12
Basswood					235								
Yellow-poplar	137,408	2,282	2,68@	6,293	8,668	13,487	11,286	17,399	20,040	13,838	15,939	23,285	2,201
Bay and magnolia	39,529	10,528	0,414	7,715	4,668	2,934	1,647	315	1,311	999			
Black cherry	14,155	3,428	2,944	3,198	1,674	742	627	833	435	274			
Black walnut	3,941		201		341	457	456	469		051		1,085	
Sycamore	9,493	200	300	485	385	336	1,362		924	853	1,035	3,258	346
Black locust	142	74	88										
Elm	53,747	3,676	6,877	6,870	7,021	4.788	6.417	5,880	4,432	1,980	2,772	1,975	1,049
Other eastern hardwoods	258,615	62.731	62.795	45,541	36,803	16,393	12.353	8,318	4,262	2,584	2,067	4,635	333
Total hardwoods	3,945,244	271.334	346.680	384.389	450,590	447.255	424,498	457.059	333,287	249.123	105.522	302,618	82.889
All species	6,337,807	320.078	461.034	653,256	786,527	782,488	760,892	746,213	565.020	426.211	300.137	437.066	97,985

Table 41 - Average net annual growth and removals of live timber and growing stock on timberland, by species, Northern Coastal Plain of South Carolina, 1 986-1991

	Live timber"		Grow	ing stock
	Net	Annual	Net	Annual
	annual	timber	annual	timber
Species	growth	removals	growth	removals
		Thousand	cubic feet	
Softwood				
Yelbw pines	26,419	172,090	25,973	170,725
Eastern white pine			·	
Spruce and fir				
Cypress	2,525	4,704	2, 330	4, 568
Other eastern softwoods	- 14	49	- 26	
Total softwoods	28, 930	176, 863	28, 277	175, 296
Hardwood				
Select white and red oaks	- 914	8, 357	- 669	8, 190
Other white and red oaks	- 7, 724	27, 882	- 6, 348	25, 496
Hickory	1,045	3,096	901	2.911
Yellow birch	´	´		´
Hard maple	30			
Sweetgum	5, 211	20, 338	5, 386	19, 120
Ash, walnut, and black cherry	-1,041	3, 336	- 721	2,812
Yellow-poplar	2,748	4,954	2,738	4,762
Tupelo and blackgum	11, 109	14,638	12,006	12, 372
Say and magnolia	521	247	635	127
Other eastern hardwoods	10, 251	14, 894	8, 928	11, 314
Total hardwoods	21, 236	97, 742	22.856	87. 104
All species	50, 166	274, 605	51, 133	262, 400

^a Merchantable portion only.

Table 42--Average net annual growth and removals of sawtimber on timberland, by species, Northern Coastal Plain of South Carolina, 1988-1991

	Net	Annual
Species	annual growth	timber removals
	Thousand	board feet
Softwood		
Yellow pines	9,770	756, 575
Eastern white pine		
Spruce and fir		
Cypress	11, 099	22, 879
Other eastern softwoods	- 869	
Total softwoods	20, 008	779, 454
Hardwood		
Select white and red oaks	- 2, 345	31, 783
Other white and red oaks	- 50, 107	00, 930
Hickory	- 940	12, 061
Yellow birch		
Hard maple		
Sweetgum	19,009	60, 393
Ash, walnut, and black cherry	1, 140	11, 397
Yellow-poplar	13, 122	19, 904
Tupelo and blackgum	46, 237	42,272
Bay and magnolia	291	
Other eastern hardwoods	15, 237	36, 694
Total hardwoods	41, 644	303, 442
All species	61, 652	1,082,896

Table 43--Average annual removals of growing stock on timberland, by species and diameter class, Northern Coastal Plain of South Carolina, 1986-1991

	Diameter class (inches at breast height)										
	All	5.0-	7.0-	9.0-	11.0-	13.0-	15.0-	17.0-	19.0-	21.0-	29.0 and
Species	classes	6.9	6.9	10.9	12.9	14.9	16.9	18.9	20.9	26.9	larger
					TI	housand o	ubic feet	•			
Softwood											
Yellow pines	170,726	9,336	17,997	24,956	26,474	27,207	19,476	17,760	13,451	13,194	673
Eastern white pins	-	-	-	-	-	-	-	-	-		-
Spruce and fir	-		-	-		-	-	-		-	-
cypress	4,566	66	162		216	630	333	776	566	1,369	370
Other eastern softwoods			-	_	-	-			-	-	
Total softwoods	175.296	9,424	16.179	24,956	26,690	27,637	19.609	16,536	14.037	14.563	1,243
Hardwood											
Select white and red oaks	6,190	357	426	900	1,433	609	584	1,163	601	1,367	730
Other white and red oaks	25,496	2,336	2,269	2,927	3,561	2,113	1,671	1,907	1,443	5,267	1,780
Hickory	2,911	39	226	227	149	373	306	508	108	683	292
Yellow birch	-	-	-	-	-		-	-	-	-	-
Hard maple	-	-	-	-	-		-	-	-	-	-
Sweetgum	19,120	1,694	2,341	2,191	3,308	2,592	2,510	1,356	537	2,347	244
Ash, walnut, and black cherry	2812	189	4 1	185	293	7 1	579	230	231	751	242
Yellow-poplar	4,762	213	55	709	235	446	1,091	282	532	1,080	119
Tupelo and blackgum	12,372	447	690	1,382	1,982	1,745	1,490	1,743	1,229	1,453	211
Bay and magnoiia	127	127						-		-	-
Other eastern hardwoods	11,314	1,297	718	1,056	1,437	1,845	1,198	1,102	511	1,586	562
Total hardwoods	87.104	6,701	6.786	9.577	12.398	9.794	9.829	8.311	5.192	14.536	4.180
All species	262,400	16.125	24,965	34,535	39,088	37,631	29,438	28,847	19,229	29.119	5.423

Table 44--Average annual mortality of live timber, growing stock, and sawtimber on timberland, by species, Northern Coastal Plain of South Carolina, 1996-1991

species	Live timber ^a	Growing stock	Sawtimber
	Thousan	Thousand Cubicfeet	
softwood			
Yelbw pines	171, 313	170, 254	791, 490
Eastern white pine			
Spruce and fir			
Cypress	3, 159	3, 118	15, 105
Other eastern softwoods	339	339	1, 383
Total softwoods	174. 811	173,709	807. 958
Hardwood			
Select white and red oaks	8,808	8, 281	38, 480
Other white and red oaks	47, 717	42, 914	177, 858
Hickory	2, 515	2, 388	11, 571
Yelbw birch			
Hard maple			
Sweetgum	21, 944	19, 848	88, 828
Ash, walnut, and black cherry	5, 821	4, 411	10, 810
Yelbw-poplar	5,592	5,197	24, 387
Tupelo and blackgum	10,172	8, 758	20, 709
Bay and magnolia	858	488	708
Other eastern hardwoods	19,332	12,172	39,487
Total hardwoods	122.757	102.433	390.814
All species	297, 588	278, 142	1,198,572

^a Merchantable portion only.

Table 45——Change in number of live trees on timberland, by species group, survey completion date and diameter class, Northern Coastal Plain of South Carolina

				Diameter cla	ass (inches	at breast	height)			
Species group	All	1.0-	3.0-	5.0-	7.0-	9.0-	11.0-	13.0-	15.0 and	
and year	classes	2.9	4.9	6.9	6.9	10.9	12.9	14.9	larger	
					Thousand	trees				
Yellow pine										
1966	636,551	224,294	147,993	103,291	64,065	38,466	25,119	15,690	19,593	
1992	848,859	432,897	179,073	104,593	59,036	30,960	19,151	11,106	12,043	
Change	+210,308	+208,603	+31,080	+1,302	-5,049	-7,526	-5,968	-4,584	-7,550	
Other softwood										
1966	43,949	17,220	9,510	4,919	3,592	2,780	1,661	1,099	3,168	
1992	39,501	14,728	7,623	5,610	3,542	2,595	1,683	1,068	2,452	
Change	-4,448	-2,492	- 1,667	+691	-50	-185	+22	-31	-716	
Hardwood										
1986	2,515,741	1,721,192	411,659	164,821	86,203	47,846	31,973	21,129	30,918	
1992	2,372,004	1,649,488	376,667	147,784	81,986	45,047	27,135	19,784	23,893	
Change	-143,737	-71,704	-34,772	-17,037	-4,217	-2,799	-4,838	-1,345	-7,025	

Table 46— - Land area, by land use class, major forest type, and survey completion date, Northern Coastal Plain of South Carolina

	Surve	Change		
Land use class	1976	1986	1992	1986- 1992
Forest land				
Timberland				
Pine and oak-pine types	2600,595	2,511,636	2,659,521	+147,885
Hardwood types	2,150,891	2,063,239	2,058,928	-4,311
Total	4,751,486	4,574,875	4,718,449	+143,574
Reserved timberland	16,652	32,713	75,713	+43,000
Wood land	3,893			
Total forest land	4,772,031	4,607,588	4,794,162	+186,574
Nonforest land				
Cropland	1,709,100	1,738,390	1,51 4,587	-223,803
Pasture and range	150,762	124,675	117,192	-7,463
Other	747,778	896,013	983,080	+87,067
Total	2,607,640	2,759,078	2,614,859	-144.219
All land"	7,379,671	7,366,666	7,409,021	+42,355

a Excludes al! water areas.

Table 47--Volume of sawtimber, growing stock, and live timber on timberland, by species group, survey completion date, and diameter class, Northern Coastal Plain of South Carolina

	Diameter class (inches at breast height)												
Speci esgroup andvear	All classes	5. 0- 8. 9	7. 0- 8. 9	9.0- 10. 9	11.0 - 12. 9	13.0- 14. 9	15.0- 18. 9	17.0- 18. 9	19.0- 20. 9	21.0 and larger			
				SAWTIMB	SER (in thousa	nd board feet)							
Softwood					(,							
1978	12,973,990			1,748,760	2,380,569	2,471,881	2,212,829	1,603,818	1,000,911	1,555,222			
1988	14,124,723			1,758,597	2,338,120	2,437,477	2,301,893	1,932,233	1,309,418	2,046,985			
1992	9,485,361			1,385,254	1,763,474	1,731,988	1,527,736	1,225,064	758, 500	1,095,345			
Hardwood													
1978	10,745,622				1, 578, 803	1,856,635	1,767,427	1,443,241	1,145,023	2,954,493			
1988	11,337,114				1, 706, 558	1,910,013	1,785,703	1,588,348	1,232,950	3,113,544			
1992	8,997,786				1, 424, 394	1,831,220	1,545,263	1,188,641	1,012,093	1,996,175			
				GROWI NG ST	OCK (intho	ueandcubi cfe	et)						
Softwood													
1978	3,265,859	271,052	407, 363	485, 160	531, 878	489. 050	403, 240	274, 423	164, 579	239, 314			
1988	3,410,187	287,663	409,633	482, 057	514, 784	473, 987	412, 364	324, 541	212, 077	313, 081			
1992	2,515,533	283, 471	383, 943	383, 230	391, 918	338,709	274, 157	208,094	122, 628	169, 383			
Hardwood													
1978	3,412,208	283, 396	367, 279	426, 596	473, 378	463, 086	390, 522	291, 830	217, 081	499, 040			
1988	3,618,277	317, 813	409, 245	442, 631	496, 347	470, 733	391,612	323, 102	234, 738	532, 255			
1992	3,134,918	302, 098	403, 177	440, 078	419, 589	453, 758	340, 404	242, 281	193, 528	340, 029			
				LIVE TIM	BER* (in thous	sand cubic fee	et)						
Softwood													
1978	3,354,537	292, 586	426, 400	500, 225	540, 426	494, 345	406, 229	275, 719	187, 126	251, 481			
1988	3,444,525	274,064	415, 595	466, 288	517, 084	476, 814	414, 809	325, 504	212,658	319, 710			
1992	2,543,739	267,877	371, 727	386, 003	394, 095	340, 291	275, 178	210, 224	123, 408	172, 938			
Hardwood													
1978	4,277,334	434, 950	504,393	552,593	576, 832	555, 254	448, 125	336, 192	252, 161	618, 834			
1988	4,224,923	423, 857	495, 487	522, 305	566, 211	536, 410	432,708	354, 242	260, 948	632, 955			
1992	3,592,872	394, 084	463, 875	496,469	470, 713	506, 772	367, 987	267, 796	206, 972	396,404			

^a Merchantable volume.

Thompson, **Michael** T.: **Sheffield**, Raymond M. 1993. Forest statistics for the Northern Coastal Plain of South Carolina, 1992. **Resour**. Bull. SE-I 35. Asheville, NC: U.S. **Depart**ment of Agriculture, Forest Service, Southeastern Forest Experiment Station. 47 pp.

Since 1988, area of timberland in the Northern Coastal Plain of South **Carolina** increased by 3 percent to 4.7 million acres. Nonindustrial private forest landowners control 67 percent of the region's timberland. Area classified as a pine type remained stable at 1.9 million acres. More than 116,000 acres were harvested annually, while 177,000 acres were regenerated by artificial and natural *means*. Volume of softwood growing stock decreased 26 percent to 2.5 billion cubic feet. Volume of hardwood growing stock declined 13 percent to 3.1 billion cubic feet. Extremely high mortality drove net growth downward. Net annual growth of softwoods declined 84 percent to 28 million cubic feet. Hardwood growth dropped 77 percent to 23 million cubic feet. Annual removals of softwood growing stock increased 9 percent to 175 million **cubic** feet; hardwood removals jumped 18 percent to 87 **million** cubic feet. Annual mortality of softwood growing stock was up eight times the level recorded in 1986, whereas hardwood mortality was up four times the previous level.

KEYWORDS: Timberland, forest ownership, timber volume, timber growth, timber removals.

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